Search history

Mohamed 10/762927 05/03/2006

```
=> d his full

     (FILE 'HOME' ENTERED AT 08:34:03 ON 03 MAY 2006)

     FILE 'CAPLUS' ENTERED AT 08:34:14 ON 03 MAY 2006
               E GRIFOLA/CT
               E E7+ALL/CT
               E E10+ALL/CT

     FILE 'STNGUIDE' ENTERED AT 08:35:30 ON 03 MAY 2006
               D COST

     FILE 'HCAPLUS' ENTERED AT 08:35:43 ON 03 MAY 2006
L1           525 SEA ABB=ON  PLU=ON  GRIFOLA/OBI
L2           493 SEA ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
               E MAITAKE+ALL/CT
L3            92 SEA ABB=ON  PLU=ON  MAITAKE/OBI
L4           578 SEA ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5           582 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
               E GLYCOPROTEIN+ALL/CT
               E GLYCO+ALL/CT
L*** DEL     582 S L1-L5

     FILE 'STNGUIDE' ENTERED AT 08:38:38 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 08:39:04 ON 03 MAY 2006
L6             1 SEA ABB=ON  PLU=ON  US200!-762927/APPS
               D SCA
               E GLYCOPROTEINS+ALL/CT
L7        110962 SEA ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L8         21998 SEA ABB=ON  PLU=ON  ANTIDIABETIC?/OBI
L9         32219 SEA ABB=ON  PLU=ON  ANTIHYPERTENSIVE?/OBI
L10         7461 SEA ABB=ON  PLU=ON  ANTIOBESITY?/OBI
L11        11551 SEA ABB=ON  PLU=ON  HYPOLIPEMIC?/OBI
L12          497 SEA ABB=ON  PLU=ON  ANTIHYPERLIPID?/OBI
L*** DEL      21 S L5 AND L7
L13        65053 SEA ABB=ON  PLU=ON  (L8 OR L9 OR L10 OR L11 OR L12)
L14            2 SEA ABB=ON  PLU=ON  L5 AND L7 AND L13
               D SCA
               D IALL L6
L15          118 SEA ABB=ON  PLU=ON  ZHUANG C?/AU
L16          200 SEA ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17          500 SEA ABB=ON  PLU=ON  PREUSS H?/AU
L18            3 SEA ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR (L16 AND L17)
               D SCA
L19           21 SEA ABB=ON  PLU=ON  L5 AND L7
L20            2 SEA ABB=ON  PLU=ON  L19 AND (L15 OR L16 OR L17)
               D SCA
L21           20 SEA ABB=ON  PLU=ON  L5 AND (L15 OR L16 OR L17)

     FILE 'STNGUIDE' ENTERED AT 08:50:54 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 08:52:33 ON 03 MAY 2006
               D SCA L21
L22        11582 SEA ABB=ON  PLU=ON  HYPOLIPEM?/OBI
L23        62013 SEA ABB=ON  PLU=ON  HYPERTENS?/OBI
L24        50378 SEA ABB=ON  PLU=ON  BLOOD PRESS?/OBI
L25        30252 SEA ABB=ON  PLU=ON  OBES?/OBI
L26        23975 SEA ABB=ON  PLU=ON  BODY WEIGHT/OBI
L27        14852 SEA ABB=ON  PLU=ON  BIOACTIV?/OBI
```

```
L28       169554 SEA ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR L26 OR L27)
L29           23 SEA ABB=ON  PLU=ON  L28 AND L5
L*** DEL      22 S L29 NOT L19
L30            1 SEA ABB=ON  PLU=ON  L29 AND L7
                 E GLYCOPROTEINS+ALL/CT

     FILE 'STNGUIDE' ENTERED AT 09:00:56 ON 03 MAY 2006
L*** DEL       5 S ?PROTEIN?/BI

     FILE 'HCAPLUS' ENTERED AT 09:01:34 ON 03 MAY 2006
L31      2391101 SEA ABB=ON  PLU=ON  ?PROTEIN?/BI
L*** DEL 101341 S ?SACCHAR?
L32       357876 SEA ABB=ON  PLU=ON  ?SACCHAR?/BI
L33           11 SEA ABB=ON  PLU=ON  (L31 OR L32) AND L29
                 D SCA
L34           25 SEA ABB=ON  PLU=ON  L5 AND L13
L35           36 SEA ABB=ON  PLU=ON  L29 OR L34
L36           55 SEA ABB=ON  PLU=ON  L35 OR L19
L37       118968 SEA ABB=ON  PLU=ON  L31 AND L32
L38            3 SEA ABB=ON  PLU=ON  L37 AND L35
                 D SCA
L39           33 SEA ABB=ON  PLU=ON  L35 NOT L38
L40           44 SEA ABB=ON  PLU=ON  L5 AND L31 AND L32
L41        92355 SEA ABB=ON  PLU=ON  L31 (L) L32
L42           36 SEA ABB=ON  PLU=ON  L5 AND L41
                 D SCA

     FILE 'STNGUIDE' ENTERED AT 09:17:23 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 09:18:22 ON 03 MAY 2006
L43           55 SEA ABB=ON  PLU=ON  GLYCO PROTEIN?/OBI
L44            3 SEA ABB=ON  PLU=ON  L5 AND L43
                 D SCA
L45       311375 SEA ABB=ON  PLU=ON  EXTRACT?/OBI
L46            0 SEA ABB=ON  PLU=ON  L44 AND L45
L47      1093132 SEA ABB=ON  PLU=ON  EXTRACT?/BI
L48            0 SEA ABB=ON  PLU=ON  L47 AND L44
L49           13 SEA ABB=ON  PLU=ON  L19 AND L47
L50       214354 SEA ABB=ON  PLU=ON  ETHANOL?/OBI
L51       279379 SEA ABB=ON  PLU=ON  ETHANOL?/BI
L52        31588 SEA ABB=ON  PLU=ON  ETHYL ALCOHOL?/OBI
L53        34574 SEA ABB=ON  PLU=ON  ETHYL ALCOHOL?/BI
L54            2 SEA ABB=ON  PLU=ON  (L50 OR L51 OR L52 OR L53) AND (L19 OR
                 L49)
L55           21 SEA ABB=ON  PLU=ON  L40 AND L47
L56           12 SEA ABB=ON  PLU=ON  L55 NOT L19
                 D SCA
L57            5 SEA ABB=ON  PLU=ON  L56 AND (L50 OR L51 OR L52 OR L53)
L58            6 SEA ABB=ON  PLU=ON  L5 AND L27
                 D SCA
L59       650480 SEA ABB=ON  PLU=ON  PURIF?/OBI OR ISOLAT?/OBI
L60            3 SEA ABB=ON  PLU=ON  (L59 OR L47) AND L58
                 D SCA
L61            6 SEA ABB=ON  PLU=ON  L55 AND (L50 OR L51 OR L52 OR L53)
L62          994 SEA ABB=ON  PLU=ON  L7 AND ((L8 OR L9 OR L10 OR L11 OR L12) OR
                 (L22 OR L23 OR L24 OR L25 OR L26))
L*** DEL     107 S L7 AND (L8-L12 OR L22-L26) AND L37
L63          307 SEA ABB=ON  PLU=ON  L7 (L) ((L8 OR L9 OR L10 OR L11 OR L12) OR
                 (L22 OR L23 OR L24 OR L25 OR L26))
L64         7100 SEA ABB=ON  PLU=ON  L7 (L) THU/RL
```

```
L65          18 SEA ABB=ON  PLU=ON  L64 (L) ((L8 OR L9 OR L10 OR L11 OR L12)
                OR (L22 OR L23 OR L24 OR L25 OR L26))
L66       91828 SEA ABB=ON  PLU=ON  GLYCOPROTEIN?/CW
L67        4489 SEA ABB=ON  PLU=ON  L66 (L) THU/RL
L68         157 SEA ABB=ON  PLU=ON  L67 AND ((L8 OR L9 OR L10 OR L11 OR L12)
                OR (L22 OR L23 OR L24 OR L25 OR L26))
L69          11 SEA ABB=ON  PLU=ON  L67 (L) ((L8 OR L9 OR L10 OR L11 OR L12)
                OR (L22 OR L23 OR L24 OR L25 OR L26))
                D SCA
L70           3 SEA ABB=ON  PLU=ON  L43 (L) THU/RL
L71           0 SEA ABB=ON  PLU=ON  L70 AND ((L8 OR L9 OR L10 OR L11 OR L12)
                OR (L22 OR L23 OR L24 OR L25 OR L26))
L72           7 SEA ABB=ON  PLU=ON  L65 NOT L69
                D SCA

     FILE 'MEDLINE' ENTERED AT 09:44:00 ON 03 MAY 2006
                D COST
L73         104 SEA ABB=ON  PLU=ON  GRIFOLA
L74          13 SEA ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75          54 SEA ABB=ON  PLU=ON  MAITAKE
L76         118 SEA ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77      176797 SEA ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78      457076 SEA ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L79          10 SEA ABB=ON  PLU=ON  L76 AND (L77 OR L78)
                D TRIAL 1-10
L*** DEL 269229 S ?DIABET?
                D TRIAL 1-3
                D TRIAL 500-503
                D TRIAL 111111-111112
L80      339051 SEA ABB=ON  PLU=ON  ?EXTRACT?
L81           2 SEA ABB=ON  PLU=ON  L79 AND L80
L82      908426 SEA ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR ?HYPOLIPEM? OR
                OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD PRESS? OR BODY
                WEIGHT
L83       19261 SEA ABB=ON  PLU=ON  L82 AND (L77 OR L78)
L*** DEL      0 S L82 AND LL76
L84          15 SEA ABB=ON  PLU=ON  L82 AND L76
                D SCA
L85          14 SEA ABB=ON  PLU=ON  L84 NOT L79
                D TRIAL 1-14
L86       20281 SEA ABB=ON  PLU=ON  BIOACTIV? OR BIO ACTIV?
L87        2425 SEA ABB=ON  PLU=ON  (L77 OR L78) AND L86
L88         103 SEA ABB=ON  PLU=ON  (L77 OR L78) AND L86 AND L82
                D TRIAL 1-10
L89       63947 SEA ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR PK OR AD)/CT

L90        2767 SEA ABB=ON  PLU=ON  L89 AND L82
L91          14 SEA ABB=ON  PLU=ON  L89 AND L82 AND L86
                D TRIAL 1-14
L92       82526 SEA ABB=ON  PLU=ON  L82 (L) DT/CT
L*** DEL   2767 S L89 AND L82
L93         116 SEA ABB=ON  PLU=ON  L92 AND L89
L94           0 SEA ABB=ON  PLU=ON  L93 AND L76
L95           3 SEA ABB=ON  PLU=ON  L92 AND L89 AND L80
                D TRIAL 1-3
L96        1331 SEA ABB=ON  PLU=ON  ANTI-OBES?
L97           0 SEA ABB=ON  PLU=ON  L96 (L) DT/CT
                D TRIAL L93 1-10
L98        1331 SEA ABB=ON  PLU=ON  ANTI-OBES?
                D TRIAL 1-3
```

```
                D TRIAL 4
                D TRIAL 100
L99            10 SEA ABB=ON  PLU=ON  (L77 OR L78) AND L98
L100          125 SEA ABB=ON  PLU=ON  L93 OR L99
                D TRIAL 1-5
L101            2 SEA ABB=ON  PLU=ON  L100 AND L86
                D TRIAL 1-2
L102            0 SEA ABB=ON  PLU=ON  L100 AND L76
                D TRIAL L100 50-60
L103         6543 SEA ABB=ON  PLU=ON  L77 (L) (TO OR PD OR PK OR AD)/CT
L104            6 SEA ABB=ON  PLU=ON  L103 AND L92
                D TRIAL 1-6
L105            0 SEA ABB=ON  PLU=ON  L103 AND L98
L106        30353 SEA ABB=ON  PLU=ON  L82 (L) (TU OR PD OR PK OR AD)/CT
L107            2 SEA ABB=ON  PLU=ON  L103 AND L106
                D TRIAL 1-2
L108           52 SEA ABB=ON  PLU=ON  L89 AND L106
                D TRIAL 1-10
L109       196498 SEA ABB=ON  PLU=ON  MOLECULAR WEIGHT
L110       401681 SEA ABB=ON  PLU=ON  RATIO
L111            0 SEA ABB=ON  PLU=ON  (L101 OR L102 OR L104 OR L107) AND (L109
                OR L110)
L112        39599 SEA ABB=ON  PLU=ON  (L77 OR L78) AND (L109 OR L110)
L113         1448 SEA ABB=ON  PLU=ON  (L77 OR L78) AND (L109 OR L110) AND L82
                D TRIAL 1-5
L114          455 SEA ABB=ON  PLU=ON  L77 AND (L109 OR L110) AND L82
L115            5 SEA ABB=ON  PLU=ON  L77 AND (L109 OR L110) AND L82 AND L106
                D TRIAL 1-5

     FILE 'EMBASE' ENTERED AT 10:19:27 ON 03 MAY 2006

     FILE 'MEDLINE' ENTERED AT 10:19:43 ON 03 MAY 2006
L116            2 SEA ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR (L16 AND L17)
L117           36 SEA ABB=ON  PLU=ON  L79 OR L81 OR L84 OR L95 OR (L101 OR L102)
                OR L104 OR L107
L118            5 SEA ABB=ON  PLU=ON  L117 AND (L15 OR L16 OR L17)

     FILE 'EMBASE' ENTERED AT 10:21:56 ON 03 MAY 2006
L119          123 SEA ABB=ON  PLU=ON  GRIFOLA
                E GRIFOLA+NT/CT
                E GRIFOLA/CT
                E E73+ALL
                E E3+ALL/CT
                E GRIFOLA+ALL/CT
                E GRIFOLIN+ALL/CT
L120          283 SEA ABB=ON  PLU=ON  GRIFOL?
L121           58 SEA ABB=ON  PLU=ON  MAITAKE
                E MAITAKE+ALL/CT
                E GLYCOPROTEIN+ALL/CT
L122        97987 SEA ABB=ON  PLU=ON  GLYCOPROTEIN?
L123       203474 SEA ABB=ON  PLU=ON  GLYCOPROTEIN+NT/CT
L124           16 SEA ABB=ON  PLU=ON  (L119 OR L120 OR L121) AND (L122 OR L123)
                D TRIAL 1-15
L125       718137 SEA ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR ?HYPOLIPEM? OR
                OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD PRESS? OR BODY
                WEIGHT
L126          431 SEA ABB=ON  PLU=ON  ANTI-OBES?
L127       718137 SEA ABB=ON  PLU=ON  (L125 OR L126)
L128         6837 SEA ABB=ON  PLU=ON  (L122 OR L123) (L) (DT OR AD OR DO OR PK
                OR PD)/CT
```

```
L129          413 SEA ABB=ON  PLU=ON  L128 AND L125
                  D TRIAL 1-5
L130         1839 SEA ABB=ON  PLU=ON  L122 (L) (DT OR AD OR DO OR PK OR PD)/CT
L131           87 SEA ABB=ON  PLU=ON  L130 AND L125
                  D TRIAL 1-5
L132        89883 SEA ABB=ON  PLU=ON  ((L125 OR L126)) (L) DT/CT
L133           30 SEA ABB=ON  PLU=ON  L132 AND L130
                  D TRIAL 1-30
L134        66371 SEA ABB=ON  PLU=ON  L132/MAJ
L*** DEL        0 S L130MAJ
L135          953 SEA ABB=ON  PLU=ON  L130/MAJ
L136            4 SEA ABB=ON  PLU=ON  L134 AND L135
                  D TRIAL 1-4
L137            2 SEA ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR (L16 AND L17)
L138            1 SEA ABB=ON  PLU=ON  (L15 OR L16 OR L17) AND (L124 OR L136)
L139            8 SEA ABB=ON  PLU=ON  L134 AND L130
L140            8 SEA ABB=ON  PLU=ON  L135 AND L132
L141           12 SEA ABB=ON  PLU=ON  (L139 OR L140)
L142            0 SEA ABB=ON  PLU=ON  (L15 OR L16 OR L17) AND L141
L143           28 SEA ABB=ON  PLU=ON  L124 OR L136 OR L141

     FILE 'MEDLINE' ENTERED AT 10:38:22 ON 03 MAY 2006
                  D QUE L117

     FILE 'HCAPLUS' ENTERED AT 10:38:55 ON 03 MAY 2006
L144           47 SEA ABB=ON  PLU=ON  L19 OR L49 OR L54 OR L38 OR L56 OR L60 OR
                  L69
L145           45 SEA ABB=ON  PLU=ON  L144 NOT (L18 OR L20 OR L21)

     FILE 'MEDLINE' ENTERED AT 10:39:59 ON 03 MAY 2006
L146           31 SEA ABB=ON  PLU=ON  L117 NOT (L116 OR L118)

     FILE 'HCAPLUS, MEDLINE, EMBASE' ENTERED AT 10:40:37 ON 03 MAY 2006
L147          100 DUP REM L145 L146 L143 (4 DUPLICATES REMOVED)
                    ANSWERS '1-45' FROM FILE HCAPLUS
                    ANSWERS '46-76' FROM FILE MEDLINE
                    ANSWERS '77-100' FROM FILE EMBASE

     FILE 'STNGUIDE' ENTERED AT 10:41:15 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 10:41:35 ON 03 MAY 2006

     FILE 'STNGUIDE' ENTERED AT 10:44:38 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 10:53:34 ON 03 MAY 2006
L148       122674 SEA ABB=ON  PLU=ON  MOLECULAR WEIGHT/OBI
L149        98780 SEA ABB=ON  PLU=ON  RATIO/OBI
L150       552714 SEA ABB=ON  PLU=ON  MOLECULAR WEIGHT/BI
L151              QUE ABB=ON  PLU=ON  RATIO/BI
L152           12 SEA ABB=ON  PLU=ON  (L148 OR L149 OR L150 OR L151) AND L144

     FILE 'MEDLINE' ENTERED AT 10:55:33 ON 03 MAY 2006
L153       196498 SEA ABB=ON  PLU=ON  MOLECULAR WEIGHT
L154       401681 SEA ABB=ON  PLU=ON  RATIO
L155            7 SEA ABB=ON  PLU=ON  L117 AND (L153 OR L154)

     FILE 'EMBASE' ENTERED AT 10:56:36 ON 03 MAY 2006
L156       116135 SEA ABB=ON  PLU=ON  MOLECULAR WEIGHT
L157       372380 SEA ABB=ON  PLU=ON  RATIO
L158            3 SEA ABB=ON  PLU=ON  (L156 OR L157) AND L143
```

```
L159          0 SEA ABB=ON  PLU=ON  (L137 OR L138) AND L158

     FILE 'MEDLINE' ENTERED AT 10:57:44 ON 03 MAY 2006
L160          1 SEA ABB=ON  PLU=ON  (L116 OR L118) AND L155

     FILE 'HCAPLUS' ENTERED AT 10:58:04 ON 03 MAY 2006
L161          1 SEA ABB=ON  PLU=ON  (L18 OR (L20 OR L21)) AND L152

     FILE 'STNGUIDE' ENTERED AT 10:58:27 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 11:00:18 ON 03 MAY 2006
L162            QUE ABB=ON  PLU=ON  (?EXTRACT? OR ?PURIF? OR ?ISOLAT?)/BI
L163         37 SEA ABB=ON  PLU=ON  L144 AND L162

     FILE 'MEDLINE' ENTERED AT 11:01:34 ON 03 MAY 2006
L164         17 SEA ABB=ON  PLU=ON  L117 AND L162

     FILE 'EMBASE' ENTERED AT 11:02:12 ON 03 MAY 2006
L165         10 SEA ABB=ON  PLU=ON  L143 AND L162
                D TRIAL 1-5

     FILE 'STNGUIDE' ENTERED AT 11:03:56 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 11:06:49 ON 03 MAY 2006
               D QUE L18
               D QUE L20
               D QUE L21
               D QUE L161
L166         21 SEA ABB=ON  PLU=ON  L18 OR (L20 OR L21) OR L161

     FILE 'MEDLINE' ENTERED AT 11:06:55 ON 03 MAY 2006
               D QUE L116
               D QUE L118
               D QUE L160
L167          6 SEA ABB=ON  PLU=ON  L116 OR L118 OR L160

     FILE 'EMBASE' ENTERED AT 11:06:59 ON 03 MAY 2006
               D QUE L137
               D QUE L138
L168          3 SEA ABB=ON  PLU=ON  (L137 OR L138)

     FILE 'HCAPLUS, MEDLINE, EMBASE' ENTERED AT 11:07:40 ON 03 MAY 2006
L169         22 DUP REM L166 L167 L168 (8 DUPLICATES REMOVED)
                    ANSWERS '1-21' FROM FILE HCAPLUS
                    ANSWER '22' FROM FILE MEDLINE
               D IBIB ABS HITIND L169 1-21
               D IALL L169 22

     FILE 'STNGUIDE' ENTERED AT 11:09:21 ON 03 MAY 2006

     FILE 'HCAPLUS' ENTERED AT 11:13:56 ON 03 MAY 2006
               D QUE L19
               D QUE L49
               D QUE L54
               D QUE L38
               D QUE L56
               D QUE L60
               D QUE L69
               D QUE L152
               D QUE L163
```

```
               D QUE L61
L170         45 SEA ABB=ON  PLU=ON  (L19 OR L49 OR L54 OR L38 OR L56 OR L60 OR
               L69 OR L152 OR L163 OR L61) NOT L166

     FILE 'MEDLINE' ENTERED AT 11:14:05 ON 03 MAY 2006
               D QUE L79
               D QUE L81
               D QUE L84
               D QUE L95
               D QUE L102
               D QUE L101
               D QUE L104
               D QUE L107
               D QUE L155
L171         31 SEA ABB=ON  PLU=ON  (L79 OR L81 OR L84 OR L95 OR L102 OR L101
               OR L104 OR L107 OR L155) NOT L167

     FILE 'EMBASE' ENTERED AT 11:14:15 ON 03 MAY 2006
               D QUE L124
               D QUE L136
               D QUE L141
               D QUE L158
L172         27 SEA ABB=ON  PLU=ON  (L124 OR L136 OR L141 OR L158) NOT L168

     FILE 'HCAPLUS, MEDLINE, EMBASE' ENTERED AT 11:14:39 ON 03 MAY 2006
L173         99 DUP REM L170 L171 L172 (4 DUPLICATES REMOVED)
                    ANSWERS '1-45' FROM FILE HCAPLUS
                    ANSWERS '46-76' FROM FILE MEDLINE
                    ANSWERS '77-99' FROM FILE EMBASE
               D IBIB ABS HITIND L173 1-45
               D IALL L173 46-99


     FILE HOME

     FILE CAPLUS

     Copyright of the articles to which records in this database refer is
     held by the publishers listed in the PUBLISHER (PB) field (available
     for records published or updated in Chemical Abstracts after December
     26, 1996), unless otherwise indicated in the original publications.
     The CA Lexicon is the copyrighted intellectual property of the
     American Chemical Society and is provided to assist you in searching
     databases on STN.  Any dissemination, distribution, copying, or storing
     of this information, without the prior written consent of CAS, is
     strictly prohibited.

     FILE COVERS 1907 - 3 May 2006  VOL 144 ISS 19
     FILE LAST UPDATED: 2 May 2006  (20060502/ED)

     Effective October 17, 2005, revised CAS Information Use Policies apply.
     They are available for your review at:

     http://www.cas.org/infopolicy.html

     FILE STNGUIDE
     FILE CONTAINS CURRENT INFORMATION.
     LAST RELOADED: May  2, 2006 (20060502/UP).

     FILE HCAPLUS
```

FILE COVERS 1907 - 3 May 2006 VOL 144 ISS 19
FILE LAST UPDATED: 2 May 2006 (20060502/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE MEDLINE
FILE LAST UPDATED: 2 MAY 2006 (20060502/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details
on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).
See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE EMBASE
FILE COVERS 1974 TO 2 May 2006 (20060502/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

EMBASE is now updated daily. SDI frequency remains weekly (default)
and biweekly.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=>

```
=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 11:06:49 ON 03 MAY 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
```

AUTHOR SEARCH


```
FILE COVERS 1907 - 3 May 2006  VOL 144 ISS 19
FILE LAST UPDATED: 2 May 2006  (20060502/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que L18

L15          118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16          200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17          500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L18            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR
                   (L16 AND L17)


=> d que L20

L1           525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2           493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3            92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4           578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5           582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7        110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L15          118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16          200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17          500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L19           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L20            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND (L15 OR L16 OR L17)


=> d que L21

L1           525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2           493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3            92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4           578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5           582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L15          118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16          200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17          500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
```

```
L21          20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND (L15 OR L16 OR L17)


=> d que L161

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7       110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L8        21998 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIDIABETIC?/OBI
L9        32219 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERTENSIVE?/OBI
L10        7461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIOBESITY?/OBI
L11       11551 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEMIC?/OBI
L12         497 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERLIPID?/OBI
L13       65053 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L8 OR L9 OR L10 OR L11 OR
                L12)
L15         118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16         200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17         500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L18           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR
                (L16 AND L17)
L19          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L20           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND (L15 OR L16 OR L17)
L21          20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND (L15 OR L16 OR L17)
L22       11582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEM?/OBI
L23       62013 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPERTENS?/OBI
L24       50378 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BLOOD PRESS?/OBI
L25       30252 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OBES?/OBI
L26       23975 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BODY WEIGHT/OBI
L27       14852 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BIOACTIV?/OBI
L28      169554 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR
                L26 OR L27)
L29          23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L5
L31     2391101 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?PROTEIN?/BI
L32      357876 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SACCHAR?/BI
L34          25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L13
L35          36 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 OR L34
L37      118968 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND L32
L38           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 AND L35
L40          44 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L31 AND L32
L47     1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L49          13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L47
L50      214354 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/OBI
L51      279379 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/BI
L52       31588 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/OBI
L53       34574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/BI
L54           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L50 OR L51 OR L52 OR L53)
                AND (L19 OR L49)
L55          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 AND L47
L56          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 NOT L19
L58           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L27
L59      650480 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PURIF?/OBI OR ISOLAT?/OBI
L60           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L59 OR L47) AND L58
L66       91828 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/CW
L67        4489 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L66 (L) THU/RL
L69          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 (L) ((L8 OR L9 OR L10 OR
                L11 OR L12) OR (L22 OR L23 OR L24 OR L25 OR L26))
L144         47 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 OR L49 OR L54 OR L38 OR
```

```
                L56 OR L60 OR L69
L148      122674 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MOLECULAR WEIGHT/OBI
L149       98780 SEA FILE=HCAPLUS ABB=ON  PLU=ON  RATIO/OBI
L150      552714 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MOLECULAR WEIGHT/BI
L151             QUE  ABB=ON  PLU=ON  RATIO/BI
L152          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L148 OR L149 OR L150 OR
                   L151) AND L144
L161           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L18 OR (L20 OR L21)) AND
                   L152


=> s L18 or L20-L21 or L161

L166         21 L18 OR (L20 OR L21) OR L161

=> file medline

FILE 'MEDLINE' ENTERED AT 11:06:55 ON 03 MAY 2006

 FILE LAST UPDATED: 2 MAY 2006 (20060502/UP).  FILE COVERS 1950 TO DATE.

 On December 11, 2005, the 2006 MeSH terms were loaded.

 The MEDLINE reload for 2006 is now (26 Feb.) available.  For details
 on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).
 See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

 OLDMEDLINE is covered back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2006 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que L116

L15          118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16          200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17          500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L116           2 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR
                   (L16 AND L17)


=> d que L118

L15          118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16          200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17          500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L73          104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74           13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75           54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76          118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78       457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
```

```
L79          10 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND (L77 OR L78)
L80      339051 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?EXTRACT?
L81           2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 AND L80
L82      908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L84          15 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 AND L76
L86       20281 SEA FILE=MEDLINE ABB=ON  PLU=ON  BIOACTIV? OR BIO ACTIV?
L89       63947 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR
                PK OR AD)/CT
L92       82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L93         116 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89
L95           3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89 AND L80
L98        1331 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTI-OBES?
L99          10 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) AND L98
L100        125 SEA FILE=MEDLINE ABB=ON  PLU=ON  L93 OR L99
L101          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L86
L102          0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L76
L103       6543 SEA FILE=MEDLINE ABB=ON  PLU=ON  L77 (L) (TO OR PD OR PK OR
                AD)/CT
L104          6 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L92
L106      30353 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) (TU OR PD OR PK OR
                AD)/CT
L107          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L106
L117         36 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 OR L81 OR L84 OR L95 OR
                (L101 OR L102) OR L104 OR L107
L118          5 SEA FILE=MEDLINE ABB=ON  PLU=ON  L117 AND (L15 OR L16 OR L17)


=> d que L160

L15         118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16         200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17         500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L73         104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74          13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75          54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76         118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77      176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78      457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L79          10 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND (L77 OR L78)
L80      339051 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?EXTRACT?
L81           2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 AND L80
L82      908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L84          15 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 AND L76
L86       20281 SEA FILE=MEDLINE ABB=ON  PLU=ON  BIOACTIV? OR BIO ACTIV?
L89       63947 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR
                PK OR AD)/CT
L92       82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L93         116 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89
L95           3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89 AND L80
L98        1331 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTI-OBES?
L99          10 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) AND L98
L100        125 SEA FILE=MEDLINE ABB=ON  PLU=ON  L93 OR L99
L101          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L86
L102          0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L76
L103       6543 SEA FILE=MEDLINE ABB=ON  PLU=ON  L77 (L) (TO OR PD OR PK OR
                AD)/CT
```

```
L104          6 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L92
L106      30353 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) (TU OR PD OR PK OR
                AD)/CT
L107          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L106
L116          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR
                (L16 AND L17)
L117         36 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 OR L81 OR L84 OR L95 OR
                (L101 OR L102) OR L104 OR L107
L118          5 SEA FILE=MEDLINE ABB=ON  PLU=ON  L117 AND (L15 OR L16 OR L17)
L153     196498 SEA FILE=MEDLINE ABB=ON  PLU=ON  MOLECULAR WEIGHT
L154     401681 SEA FILE=MEDLINE ABB=ON  PLU=ON  RATIO
L155          7 SEA FILE=MEDLINE ABB=ON  PLU=ON  L117 AND (L153 OR L154)
L160          1 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L116 OR L118) AND L155


=> s L116 or L118 or L160

L167          6 L116 OR L118 OR L160

=> file embase

FILE 'EMBASE' ENTERED AT 11:06:59 ON 03 MAY 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.

 FILE COVERS 1974 TO 2 May 2006 (20060502/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 EMBASE is now updated daily.  SDI frequency remains weekly (default)
 and biweekly.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que L137

L15         118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16         200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17         500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L137          2 SEA FILE=EMBASE ABB=ON  PLU=ON  (L15 AND (L16 OR L17)) OR (L16
                AND L17)


=> d que L138

L15         118 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ZHUANG C?/AU
L16         200 SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAWAGISHI H?/AU
L17         500 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PREUSS H?/AU
L119        123 SEA FILE=EMBASE ABB=ON  PLU=ON  GRIFOLA
L120        283 SEA FILE=EMBASE ABB=ON  PLU=ON  GRIFOL?
L121         58 SEA FILE=EMBASE ABB=ON  PLU=ON  MAITAKE
L122      97987 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN?
L123     203474 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN+NT/CT
L124         16 SEA FILE=EMBASE ABB=ON  PLU=ON  (L119 OR L120 OR L121) AND
                (L122 OR L123)
L125     718137 SEA FILE=EMBASE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L126        431 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTI-OBES?
L130       1839 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 (L) (DT OR AD OR DO OR PK
```

```
               OR PD)/CT
L132       89883 SEA FILE=EMBASE ABB=ON  PLU=ON  ((L125 OR L126)) (L) DT/CT
L134       66371 SEA FILE=EMBASE ABB=ON  PLU=ON  L132/MAJ
L135         953 SEA FILE=EMBASE ABB=ON  PLU=ON  L130/MAJ
L136           4 SEA FILE=EMBASE ABB=ON  PLU=ON  L134 AND L135
L138           1 SEA FILE=EMBASE ABB=ON  PLU=ON  (L15 OR L16 OR L17) AND (L124
               OR L136)


=> s L137-L138

L168           3 (L137 OR L138)

=> dup rem L166 L167 L168
FILE 'HCAPLUS' ENTERED AT 11:07:40 ON 03 MAY 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 11:07:40 ON 03 MAY 2006

FILE 'EMBASE' ENTERED AT 11:07:40 ON 03 MAY 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.
PROCESSING COMPLETED FOR L166
PROCESSING COMPLETED FOR L167
PROCESSING COMPLETED FOR L168
L169           22 DUP REM L166 L167 L168 (8 DUPLICATES REMOVED)
                  ANSWERS '1-21' FROM FILE HCAPLUS
                  ANSWER '22' FROM FILE MEDLINE

=> d ibib abs hitind L169 1-21; d iall L169 22

L169 ANSWER 1 OF 22  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2003:694006  HCAPLUS
DOCUMENT NUMBER:          140:93082
TITLE:                    Effects of niacin-bound chromium, Maitake
                          mushroom fraction SX and (-)-hydroxycitric acid on the
                          metabolic syndrome in aged diabetic Zucker fatty rats
AUTHOR(S):                Talpur, Nadeem; Echard, Bobby W.; Yasmin, Taharat;
                          Bagchi, Debasis; Preuss, Harry G.
CORPORATE SOURCE:         Department of Physiology and Biophysics, Georgetown
                          University Medical Center, Washington, DC, USA
SOURCE:                   Molecular and Cellular Biochemistry (2003), 252(1&2),
                          369-377
                          CODEN: MCBIB8; ISSN: 0300-8177
PUBLISHER:                Kluwer Academic Publishers
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Previous studies have demonstrated that niacin-bound chromium (NBC),
     Maitake mushroom, and (-)-hydroxycitric acid (HCA-SX) can
     ameliorate hypertension, dyslipidemia, and diabetes mellitus.  They may be
     useful in body weight (BW) management.  We used aged diabetic Zucker fatty
     rats (ZFR, 70-75 wk old) to determine whether NBC, fraction SX of
     Maitake mushroom (MSX), and 60% (-)-hydroxycitric acid (HCA-SX)
     from Garcinia cambogia, alone or in combination, can affect the metabolic
     syndrome X.  The metabolic syndrome X is a concurrence of disturbed
     glucose and insulin metabolism, overweight, abdominal fat distribution, mild
     dyslipidemia, and hypertension, all of which are associated with subsequent
     development of type 2 diabetes mellitus and cardiovascular disease.  Four
     groups of 8 ZFR were gavaged daily with the 3 different supplements.  For
```

the initial 3 wk, the control ZFR received only water, the second group received NBC with 40 μg elemental Cr/day, the third group MSX at 100 mg/day, and the fourth group HCA-SX at 200 mg/day. During weeks 4-6, the doses in each treatment were doubled. The control rats lost each .apprx.50 g BW over 6 wk of treatment, which is characteristic of these animals in declining health. The 8 ZFR receiving NBC lost each .apprx.9 g BW, while rats fed MSX lost each 16 g BW. ZFR fed HCA-SX simulated the pattern in the control group, as they lost each .apprx.46 g BW. The wide individual variations resulted in a lack of statistical significance among the groups. Nevertheless, 75% ZFR in the control group lost >50 g BW over 6 wk, whereas none of the ZFR fed NBC, 25% ZFR fed MSX, and 57% ZFR fed HCA-SX lost >50 g BW over 6 wk. ZFR in all 3 treatment groups had lower blood pressures compared to controls and this effect seemed to be dose related. The general trend was for renal and liver blood parameters, hepatic and renal lipid peroxidn., and DNA fragmentation to improve due to the supplementation with these natural products. Combination treatment with the 3 supplements led to lower systolic blood pressure and maintenance of BW compared to controls. Elderly diabetics and even aging individuals might benefit from similar dietary regimen.

CC 18-1 (Animal Nutrition)
Section cross-reference(s): 14

ST nutrition chromium **Maitake** mushroom hydroxycitrate blood pressure body wt

IT Blood
Blood pressure
Body weight
Grifola frondosa
Kidney
Lipid peroxidation
Liver
Nutrition, animal
(dietary niacin-bound chromium, **Maitake** mushroom fraction SX and (-)-hydroxycitric acid effects on metabolic syndrome in aged diabetic Zucker fatty rats)

IT DNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dietary niacin-bound chromium, **Maitake** mushroom fraction SX and (-)-hydroxycitric acid effects on metabolic syndrome in aged diabetic Zucker fatty rats)

IT Metabolic disorders
(metabolic syndrome X; dietary niacin-bound chromium, **Maitake** mushroom fraction SX and (-)-hydroxycitric acid effects on metabolic syndrome in aged diabetic Zucker fatty rats)

IT 50-99-7, D-Glucose, biological studies 57-13-6, Urea, biological studies 60-27-5, Creatinine 9000-86-6, Alt 9000-97-9, Ast
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dietary niacin-bound chromium, **Maitake** mushroom fraction SX and (-)-hydroxycitric acid effects on metabolic syndrome in aged diabetic Zucker fatty rats)

IT 7440-47-3, Chromium, biological studies 27750-10-3, (-)-Hydroxycitric acid 64452-96-6, 3-Pyridinecarboxylic acid, chromium(3+) salt
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(dietary niacin-bound chromium, **Maitake** mushroom fraction SX and (-)-hydroxycitric acid effects on metabolic syndrome in aged diabetic Zucker fatty rats)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:567960 HCAPLUS

DOCUMENT NUMBER: 138:265554
TITLE: Antihypertensive and metabolic effects of whole **Maitake** mushroom powder and its fractions in two rat strains
AUTHOR(S): Talpur, Nadeem A.; Echard, Bobby W.; Fan, Arthur Yin; Jaffari, Omeed; Bagchi, Debasis; **Preuss, Harry G.**
CORPORATE SOURCE: Department of Physiology and Biophysics, Georgetown University Medical Center, Washington, DC, USA
SOURCE: Molecular and Cellular Biochemistry (2002), 237(1&2), 129-136
CODEN: MCBIB8; ISSN: 0300-8177
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Maitake** mushroom has been reported to favorably influence hypertension and diabetes mellitus. This study compared the effects of whole **Maitake** mushroom powder and two exts., designated as ether-soluble (ES) and water-soluble (WS), on Zucker fatty rats (ZFR), a model of insulin resistance, and on spontaneously hypertensive rats (SHR), a model of genetic hypertension. The initial study followed four groups of ZFR and SHR receiving special diets: a basal diet (BD), BD plus whole **Maitake** mushroom powder (20% weight/weight), BD plus fraction ES (0.10% weight/weight), and BD plus WS (0.22% weight/weight). Different effects of these dietary regimens on the 2 rat strains were found. After 35 days, only consumption of the ES diet decreased systolic BP (SBP) in SHR, while in ZFR only the groups consuming the whole **Maitake** and WS diets showed decreased SBP. A challenge test with losartan (an angiotensin II receptor blocker) indicated that angiotensin II does not play a major role in SBP regulation of ZFR but does in SHR, where consumption of ES lowered the activity of this system. In SHR, glucose, cholesterol, circulating insulin and HbA1C were virtually similar among all the dietary groups, but whole **Maitake**, ES and WS diets were associated with decreased triglycerides, and the ES diet with lowered serum creatinine. In ZFR, circulating insulin and HbA1C were decreased in the whole **Maitake** powder and ES groups, and tended to be lower in the WS group, compared to control. In further studies, ZFR were gavaged once daily with water (control), 44 mg of fraction WS, or 44 mg of fraction WS plus 100 μg niacin-bound Cr. Oral gavage of WS lowered SBP and circulating glucose concns., especially with the addition of Cr. It is concluded that these forms of **Maitake** mushroom have antihypertensive and antidiabetic potential which differ among rat strains. The ES fraction may decrease SBP in SHR via alteration of the renin-angiotensin system.

CC 1-12 (Pharmacology)
Section cross-reference(s): 11

ST **Maitake** mushroom antidiabetic antihypertensive

IT Antidiabetic agents
Antihypertensives
Diabetes mellitus
Grifola frondosa
(antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions)

IT Renin-angiotensin system
(antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions in relation to effects on)

IT Glycerides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(blood; antihypertensive and antidiabetic effects of whole

Maitake mushroom powder and its fractions in relation to effects on)

IT Hypertension
(spontaneous; antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions)

IT 62572-11-6, Hemoglobin A1c
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions in relation to effects on)

IT 9004-10-8, Insulin, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions in relation to effects on resistance to)

IT 7440-47-3D, Chromium, niacin-bound
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions plus)

IT 50-99-7, D-Glucose, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(blood; antihypertensive and antidiabetic effects of whole **Maitake** mushroom powder and its fractions in relation to effects on)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2004:286031 HCAPLUS
TITLE: Effects of **Maitake** mushroom fractions on blood pressure of Zucker fatty rats
AUTHOR(S): Talpur, Nadeem; Echard, Bobby; Dadgar, Azod; Aggarwal, Sarla; **Zhuang, Cun**; Bagchi, Debasis; **Preuss, Harry G.**
CORPORATE SOURCE: Dep. Physiology, Med. and Pathology, Georgetown Univ. Med. Center, Washington, DC, 20057, USA
SOURCE: Research Communications in Molecular Pathology and Pharmacology (2002), 112(1-4), 68-82
CODEN: RCMPE6; ISSN: 1078-0297
PUBLISHER: PJD Publications Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A link exists between insulin resistance and many chronic disorders of aging including advancing-age. A safer means to prevent or, at least, slow the erosion of insulin sensitivity would provide a novel approach to better health. We compared the ability of a specific extract labeled fraction ' SX, as well as whole **Maitake** powder, fraction ES and fraction D of **Maitake** to influence SBP and various pertinent biochem. parameters when given orally to Zucker Fatty rats, a model of insulin resistance and type 2 diabetes mellitus. A secondary gain was the ability to ascertain the effects of bitter melon, olive oil, and sesame oil alone and combined with fraction SX to influence SBP. We found that a water-soluble fraction obtained from **Maitake** mushroom (SX) lowers SBP and fasting blood glucose significantly over the three to six weeks of study. While whole **Maitake** fraction lowered SBP effectively, the effects on fasting blood sugar were not apparent under the conditions of study. In contrast to fraction SX and fraction D, developed primarily to enhance immunity and suppress tumor development and growth, has essentially no effect on SBP under the conditions examined An ether soluble fraction designated ES lowers SBP significantly. Interestingly, olive

oil, unlike sesame oil, also lowers SBP. Finally, bitter melon and a combination of SX plus bitter melon also lower SBP. We conclude that fraction SX of **Maitake** mushroom may be useful to treat insulin resistance alone or combined with other natural products such as bitter melon and niacin-bound chromium.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 1996:490485 HCAPLUS
DOCUMENT NUMBER: 125:188652
TITLE: Purification and characterization of a lectin from the toxic mushroom Amanita pantherina
AUTHOR(S): **Zhuang, Cun**; Murata, Takeomi; Usui, Taichi; **Kawagishi, Hirokazu**; Kobayashi, Kazukiyo
CORPORATE SOURCE: Department of Applied Biological Chemistry, Faculty of Agriculture, Shizuoka University, 836 Ohya, Shizuoka, 422, Japan
SOURCE: Biochimica et Biophysica Acta, General Subjects (1996), 1291(1), 40-44
CODEN: BBGSB3; ISSN: 0304-4165
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A lectin (APL) was isolated from the mushroom, A. pantherina, by means of hydrophobic chromatog. on Butyl-Toyopearl, affinity chromatog. on bovine submaxillary mucin (BSM)-Toyopearl, and gel filtration on Superose 12 HR10/30 using a FPLC system. This lectin was composed of 2 identical subunits of 22 kDa and the mol. weight of the intact lectin was estimated to be 43 kDa by gel filtration. In hemagglutination inhibition assays, it exhibited sugar-binding specificities toward GlcNAcβ1→4Man.bet a.-pNP, Galβ1→4GlcNAcβ1→4GlcNAc, and Galβ1→4GlcNAcβ1→4GlcNAcβ1→4GlcNAc (pNP = p-nitrophenyl) among mono- and oligosaccharides tested. Among glycoproteins tested, BSM and asialo-BSM were the strongest inhibitors.
CC 6-3 (General Biochemistry)

L169 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1990:474921 HCAPLUS
DOCUMENT NUMBER: 113:74921
TITLE: Isolation and characterization of a lectin from **Grifola** frondosa fruiting bodies
AUTHOR(S): **Kawagishi, Hirokazu**; Nomura, Aya; Mizuno, Takashi; Kimura, Atsuo; Chiba, Seiya
CORPORATE SOURCE: Fac. Agric., Shizuoka Univ., Shizuoka, 422, Japan
SOURCE: Biochimica et Biophysica Acta, General Subjects (1990), 1034(3), 247-52
CODEN: BBGSB3; ISSN: 0304-4165
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An N-acetylgalactosamine-specific lectin (GFL) was isolated from G. frondosa fruiting bodies by affinity chromatogs. on acid-treated Sepharose CL-4B and then GalNAc-Toyopearl. The isolated lectin agglutinated all types of erythrocytes equally. Mol. masses estimated by gel filtration under various buffers and matrixes varied from 30 to 52 kDa. SDS-PAGE in the presence or absence of 2-mercaptoethanol showed three major bands of 33, 66 and 100 kDa and a faint band of 65 kDa. This lectin exhibited GalNAc-specificity. The protein was a glycoprotein containing 3.3% total sugar, and the amino acid anal. revealed a high content of acidic and hydroxy amino acids and a low content of methionine and histidine. GFL

was cytotoxic against HeLa cells. The toxicity did not appear after preincubating the lectin with the haptenic sugar N-acetylgalactosamine.
CC 11-1 (Plant Biochemistry)
ST **Grifola** galactosamine lectin purifn
IT **Grifola frondosa**
(N-acetylgalactosamine-specific lectin of, purification and characterization of)
IT Agglutinins and Lectins
RL: BIOL (Biological study)
(hemagglutinins, of **Grifola** frondosa, purification and characterization of)
IT 1811-31-0
RL: BIOL (Biological study)
(lectin from **Grifola** frondosa with specificity for, purification and characterization of)

L169 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:59966 HCAPLUS
DOCUMENT NUMBER: 142:130693
TITLE: **Glycoprotein** with antidiabetic, antihypertensive, antiobesity and antihyperlipidemic effects from **Grifola** frondosa, and a method for preparing same
INVENTOR(S): **Zhuang, Cun; Kawagishi, Hirokazu; Preuss, Harry G.**
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005014683	A1	20050120	US 2004-762927	20040122
JP 2005068112	A2	20050317	JP 2003-303462	20030827
CA 2455655	AA	20050118	CA 2004-2455655	20040122
PRIORITY APPLN. INFO.:			US 2003-488337P P	20030718

AB A glycoprotein extracted from the fruiting body of G. frondosa is demonstrated to have antidiabetic, antihypertensive, antiobesity and antihyperlipidemic effects, and has great potential as an active component for pharmaceuticals, dietary supplements or health food prepns. to treat and/or prevent the above diseases. This invention is to provide the glycoprotein and its preparation method.
IC ICM A61K038-16
ICS A61K035-84; A61K038-14; C07K014-375
INCL 514008000; 424195150; 530322000
CC 10-1 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 16
ST antidiabetic antihypertensive antiobesity antihyperlipidemic **glycoprotein Grifola**
IT Antidiabetic agents
Antihypertensives
Antiobesity agents
Grifola frondosa
Hypolipemic agents
(**glycoprotein** with antidiabetic, antihypertensive, antiobesity and antihyperlipidemic effects from **Grifola** frondosa)

IT **Glycoproteins**
RL: BMF (Bioindustrial manufacture); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**glycoprotein** with antidiabetic, antihypertensive, antiobesity and antihyperlipidemic effects from **Grifola** frondosa)

L169 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1081507 HCAPLUS
DOCUMENT NUMBER: 143:43119
TITLE: Overview of the use of **maitake** mushroom and fraction D in cancer
AUTHOR(S): **Preuss, Harry**; Konno, Sensuke; Bagchi, Debasis
CORPORATE SOURCE: Georgetown Medical Center, USA
SOURCE: Phytopharmaceuticals in Cancer Chemoprevention (2005), 509-517. Editor(s): **Bagchi, Debasis; Preuss, Harry G.** CRC Press LLC: Boca Raton, Fla.
CODEN: 69GGT2; ISBN: 0-8493-1560-3
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review. Most studies on the immunol. properties and cancer preventive effects of **maitake** mushroom (**Grifola** frondosa) have used mainly one of its bioactive exts., the **maitake** fraction D. The major beneficial effects of the fraction D seem to derive from its immunity-enhancing potential, but other very different physiol. mechanisms may contribute to the overall therapeutic effect related to antiangiogenesis and apoptosis. The physiol. mechanisms of **maitake** mushroom activities are discussed.
CC 18-0 (Animal Nutrition)
Section cross-reference(s): 14
ST review nutrition **Grifola maitake** mushroom glucan cancer
IT **Grifola frondosa**
Neoplasm
Nutrition, animal
(dietary **maitake** mushroom (**Grifola** frondosa) and its fraction D in cancer prevention)
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:754752 HCAPLUS
DOCUMENT NUMBER: 140:338398
TITLE: Bioactive substances in **Maitake** (**Grifola** frondosa) and its medicinal utilization
AUTHOR(S): **Zhuang, Cun**
CORPORATE SOURCE: Bio-Research Institute, NJ, USA
SOURCE: Food Style 21 (2003), 7(9), 77-79
CODEN: FSTYFF; ISSN: 1343-9502
PUBLISHER: Shokuhin Kagaku Shinbunsha
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review. The antitumor effect of **Grifola** frondosa-derived β-glucan product, Grifron-D-fraction (GD), and the anti-syndrome X (mixed symptoms of obesity, glucose intolerance, dyslipidemia, and hypertension, etc.) effect of **Grifola** frondosa-derived active component are discussed.

CC 18-0 (Animal Nutrition)
Section cross-reference(s): 1, 63
ST review **Grifola** glucan antitumor syndrome X
IT Antitumor agents
Grifola frondosa
(bioactive substances in **Maitake** (**Grifola** frondosa) and its medicinal utilization)
IT Natural products, pharmaceutical
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioactive substances in **Maitake** (**Grifola** frondosa) and its medicinal utilization)
IT Metabolic disorders
(metabolic syndrome X; bioactive substances in **Maitake** (**Grifola** frondosa) and its medicinal utilization)
IT 9041-22-9, β-Glucan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bioactive substances in **Maitake** (**Grifola** frondosa) and its medicinal utilization)

L169 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:722887 HCAPLUS
DOCUMENT NUMBER: 133:362260
TITLE: Suppression of D-galactosamine-induced liver injury by mushrooms in rats
AUTHOR(S): Lee, Eun Woo; He, Puming; **Kawagishi, Hirokazu**; Sugiyama, Kimio
CORPORATE SOURCE: Department of Applied Biochemistry, Faculty of Agriculture, Shizuoka University, Shizuoka, 422-8529, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (2000), 64(9), 2001-2004
CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several species of edible mushroom were found to suppress D-galactosamine-induced enhancement of blood plasma alanine and aspartate aminotransferase activities when the powdered mushrooms were added to the diet at 5% and fed to 5-wk-old male Wistar rats for 2 wk. The 7 mushroom species tested were Lentinus edodes, Pleurotus ostreatus, Hipsizigus marmoreus, Fulammulina velutipes, Agaricus bisporus, **Grifola** frondosa, and Auricularia auricula. G. frondosa had the most potent effects in a dose-dependent manner. Significant effects were observed only with water-soluble low-mol.-weight fraction of G. frondosa. Thus, several mushroom species can have protective effects against liver injury induced by D-galactosamine.
CC 18-7 (Animal Nutrition)
Section cross-reference(s): 14
IT Agaricus bisporus
Auricularia auricula
Blood plasma
Flammulina velutipes
Grifola frondosa
Hypsizygus marmoreus
Lentinula edodes
Mushroom
Nutrition, animal
Pleurotus ostreatus
(dietary mushrooms protection against D-galactosamine-induced liver

injury in rats)
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:255676 HCAPLUS
DOCUMENT NUMBER: 133:73464
TITLE: A lectin from an edible mushroom Pleurotus ostreatus as a food intake-suppressing substance
AUTHOR(S): **Kawagishi, Hirokazu**; Suzuki, Hiroshi; Watanabe, Haruki; Nakamura, Hiroko; Sekiguchi, Takehiko; Murata, Takeomi; Usui, Taichi; Sugiyama, Kimio; Suganuma, Hiroyuki; Inakuma, Takahiro; Ito, Kiyoshi; Hashimoto, Yohichi; Ohnishi-Kameyama, Mayumi; Nagata, Tadahiro
CORPORATE SOURCE: Faculty of Agriculture, Department of Applied Biological Chemistry, Shizuoka University, Shizuoka, 422-8529, Japan
SOURCE: Biochimica et Biophysica Acta, General Subjects (2000), 1474(3), 299-308
CODEN: BBGSB3; ISSN: 0304-4165
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In an experiment in which rats had free access to food and water, the rats did not eat the diet containing the mushroom P. ostreatus even if they were emaciated. A P. ostreatus lectin (POL) was isolated from the mushroom as the food intake-suppression principle. In hemagglutination inhibition assays, Me-αGalNAc was the most potent inhibitor among the monosaccharides tested. Among all the sugars tested, 2'-fucosyllactose (Fucα1→2Galβ1→4Glc) was the strongest inhibitor and its inhibitory potency was 5-times greater than that of Me-αGalNAc. POL had a binding ability to bovine submaxillary mucin (BSM) and asialo-BSM; other glycoproteins were inert to the binding. The food intake-suppressing activity of POL was dose-dependent. A diet containing 0.1% POL caused a 50% decrease in the food intake compared to controls.
CC 18-7 (Animal Nutrition)
Section cross-reference(s): 10
IT Agaricus bisporus
Agaricus blazei
Agrocybe cylindracea
Appetite depressants
Flammulina velutipes
Ganoderma lucidum
Grifola frondosa
Hericium erinaceus
Lentinula edodes
Lyophyllum ulmarium
Pholiota nameko
Pleurotus abalonus
Pleurotus cornucopiae
Pleurotus ostreatus
Tricholoma japonicum
(lectin from Pleurotus ostreatus edible mushroom as food intake-suppressing substance in rats and its isolation and characterization)
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:681520 HCAPLUS
DOCUMENT NUMBER: 134:187693
TITLE: Biological responses from **Grifola** frondosa
AUTHOR(S): **Zhuang, Cun**; Mizuno, Takashi
CORPORATE SOURCE: Bio Research Institute, Ridgefield Park, NJ, 07660, USA
SOURCE: International Journal of Medicinal Mushrooms (1999), 1(4), 317-324
CODEN: IMMUFR; ISSN: 1521-9437
PUBLISHER: Begell House, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with several refs. is given on **Grifola** frondosa, an edible mushroom with a good flavor, a crisp texture, and an excellent aroma. It goes well not only with both Asian and European dishes, but is also frequently used to treat spleen and stomach ailments, and to calm the mind in traditional Chinese medicine. Since the mid-1980s, the biol. activities of G. frondosa were evaluated in detail. Both basic research and clin. experience have shown that **maitake** possesses the ability to produce antitumor, immunol. enhancement, and also has anti-HIV, antihypertension, antidiabetic, antihyperlipemia and antiobesity properties.
CC 1-0 (Pharmacology)
ST review **Grifola** glucan antidiabetic antiAIDS antitumor; **maitake** glucan antihypertensive hypolipemic antiobesity review
IT Anti-AIDS agents
Antidiabetic agents
Antihypertensives
Antiobesity agents
Antitumor agents
Grifola frondosa
Hypolipemic agents
Immunostimulants
(biol. responses from **Grifola** frondosa)
IT Natural products, pharmaceutical
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(biol. responses from **Grifola** frondosa)
IT 9041-22-9, β-Glucan
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(derivs.; biol. responses from **Grifola** frondosa)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:536193 HCAPLUS
DOCUMENT NUMBER: 122:305599
TITLE: **Maitake**, **Grifola** frondosa: pharmacological effects
AUTHOR(S): Mizuno, Takashi; **Zhuang, Cun**
CORPORATE SOURCE: Changchun College, Shizuoka University, Fujieda, 426, Japan
SOURCE: Food Reviews International (1995), 11(1), 135-49
CODEN: FRINEL; ISSN: 8755-9129
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 32 refs., describing the composition, nutritional and

food-related properties, and pharmacol. active (mainly antitumor) components of the fungus G. frondosa (**Maitake**).
CC 1-0 (Pharmacology)
Section cross-reference(s): 11, 17
ST review **Grifola** frondosa **Maitake** pharmacol
IT Pharmaceutical natural products
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**Maitake**; pharmacol. of **Grifola** frondosa (**Maitake**))
IT Neoplasm inhibitors
(components of **Maitake** (**Grifola** frondosa) as)
IT **Grifola frondosa**
(pharmacol. of **Grifola** frondosa (**Maitake**))

L169 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:536188 HCAPLUS
DOCUMENT NUMBER: 123:5160
TITLE: Mushroom lectins
AUTHOR(S): **Kawagishi, Hirokazu**
CORPORATE SOURCE: Department Applied Biological Chemistry, Shizuoka University, Shizuoka, 422, Japan
SOURCE: Food Reviews International (1995), 11(1), 63-8
CODEN: FRINEL; ISSN: 8755-9129
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 32 refs. Many plants, animals, and microorganisms contain lectins, but relatively few studies have been conducted on lectins from mushrooms. Some lectins have been isolated from the fruiting bodies of Basidiomycetes. Among the species studied are Ischchnoderma resinosum lectin (IRA), **Grifola** fondosa lectin (GFL), Fomes fomentarius lectin (FFL), Ganoderma lucidum lectin (GLL), etc. Some properties of these lectins are presented.
CC 10-0 (Microbial, Algal, and Fungal Biochemistry)

L169 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:255365 HCAPLUS
DOCUMENT NUMBER: 122:27268
TITLE: Lactitol for lectin purification
INVENTOR(S): **Kawagishi, Hirokazu**
PATENT ASSIGNEE(S): Towa Kasei Kogyo Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06234799	A2	19940823	JP 1993-41726	19930208
JP 3515139	B2	20040405		

PRIORITY APPLN. INFO.: JP 1993-41726 19930208
AB Lactitol-containing solution is disclosed for chromatog. separation of D-galactopyranosyl group-binding lectins. The disclosed lactitol contains ≥1 functional group selecting from β-D-galactopyranosyl, β-D-galactosaminyl, or N-acetyl-β-D-galactosaminyl, and can facilitate the removal of carbohydrates from lectin extract In example,

lactitol-containing solution was used fro chromatog. separation of lectin from Arachis
hypogaea, **Grifola** frondosa seed, and Gymnothora javanicus liver.
IC ICM C07K015-14
ICS B01D015-00; B01D015-08; C07K003-20
CC 9-9 (Biochemical Methods)
IT **Grifola frondosa**
(seed; lactitol for lectin purification)

L169 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:181996 HCAPLUS
DOCUMENT NUMBER: 122:453
TITLE: Chemical modification and antitumor activity of polysaccharides from the mycelium of liquid-cultured **Grifola** frondosa
AUTHOR(S): **Zhuang Cun**; Mizuno, Takashi; Ito, Hitoshi; Shimura, Keishiro
CORPORATE SOURCE: United Grad. Sch. Agric. Sci., Gifu Univ., Gifu, 501-11, Japan
SOURCE: Nippon Shokuhin Kogyo Gakkaishi (1994), 41(10), 733-40
CODEN: NSKGAX; ISSN: 0029-0394
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Twenty-three chemical-modified polysaccharides, including 5 polyaldehyde-, 10 polyalc.-, 4 formylated-polysaccharides, and 4 formolysis products of polysaccharides, were prepared from 9 mycelial polysaccharides of G. frondosa. Although 3 of the original polysaccharides (FA-3, FA-2-b-β and FII-3) had no activity, their polyaldehyde-, polyol-, formylated-, and formolyzed derivs. showed significant activity. Polyaldehyde-, and polyol-polysaccharides prepared from a polysaccharide (FI0-a-β) with low antitumor activity showed activity higher than the original polysaccharide. Polyaldehyde- and polyol-polysaccharides prepared from polysaccharides (FIII-1-b and FIII-2-b) with relatively high activity also showed antitumor activity higher than the original polysaccharides. The formolysis product of FIII-1-insol. with relatively high activity did not show higher antitumor activity compared with the original polysaccharide, but also show the complement C3 activation on macrophages.
CC 1-6 (Pharmacology)
Section cross-reference(s): 10
ST polysaccharide mycelium **Grifola** modification antitumor structure
IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Smith degradation or formic acid degradation products; antitumor activity of
chemical modified polysaccharides from mycelium of **Grifola** frondosa)
IT **Grifola frondosa**
Neoplasm inhibitors
(antitumor activity of chemical modified polysaccharides from mycelium of **Grifola** frondosa)
IT Macrophage
(effects of chemical modified polysaccharides from mycelium of **Grifola** frondosa on the release of complement C3 from macrophage)
IT Carbohydrates and Sugars, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alditols, as Smith degradation products of polysaccharides; antitumor activity of chemical modified polysaccharides from mycelium of **Grifola** frondosa)

IT Molecular structure-biological activity relationship
(neoplasm-inhibiting, antitumor activity of chemical modified polysaccharides from mycelium of **Grifola** frondosa)

IT 80295-41-6, Complement C3
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effects of chemical modified polysaccharides from mycelium of **Grifola** frondosa on the release of complement C3 from macrophage)

L169 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:181995 HCAPLUS
DOCUMENT NUMBER: 122:452
TITLE: Antitumor activity and immunological property of polysaccharides from the mycelium of liquid-cultured **Grifola** frondosa
AUTHOR(S): **Zhuang, Cun**; Mizuno, Takashi; Ito, Hitoshi; Shimura, Keishiro; Sumiya, Toshimitsu; Kawade, Mitsuo
CORPORATE SOURCE: United Grad. Sch. Agric. Sci., Gifu Univ., Gifu, 501-11, Japan
SOURCE: Nippon Shokuhin Kogyo Gakkaishi (1994), 41(10), 724-32
CODEN: NSKGAX; ISSN: 0029-0394
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A systematic method for the fractionation and purification of antitumor polysaccharide fractions from the mycelium of liquid-cultured G. frondosa was established. Twenty-three polysaccharide fractions (12 water-soluble and 11 water-insol. fractions) were obtained. FI0-a-α, FI0-a-β, FA-1, and FA-2-b-α in water-soluble fractions showed good antitumor activity against Sarcoma 180/mice, and FIII-1-a, FIII-1-b, FIII-2-a, FIII-2-b, and FIII-2-c in water-insol. fractions, markedly inhibited the growth of Sarcoma 180/mice. In addition, administration of each of FI0-a, FIII-1-a, FIII-1-b, FIII-1-c, FIII-2-a, FIII-2-b, FIII-2-c to mice could cause an evident increase in antigenic C3 release from macrophages. These results suggest that active polysaccharide fractions, which were considered to be heteroglycan or heteroglycan-protein complexes, can depress or reduce tumor growth by activating the immune system as a biol. response modifier.

CC 1-6 (Pharmacology)
Section cross-reference(s): 10

ST polysaccharide mycelium **Grifola** antitumor activity; complement C3 release polysaccharide mycelium **Grifola**

IT **Grifola frondosa**
Neoplasm inhibitors
(antitumor activity and properties of polysaccharides from mycelium of **Grifola** frondosa)

IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(antitumor activity and properties of polysaccharides from mycelium of **Grifola** frondosa)

IT Macrophage
(effects of polysaccharides from mycelium of **Grifola** frondosa on release of complement C3 from macrophage)

IT Immunostimulants
(effects of polysaccharides from mycelium of **Grifola** frondosa on release of complement C3 from macrophage in relation to antitumor activity)
IT Molecular structure-biological activity relationship
(neoplasm-inhibiting, antitumor activity and properties of polysaccharides from mycelium of **Grifola** frondosa)
IT 80295-41-6, Complement C3
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effects of polysaccharides from mycelium of **Grifola** frondosa on release of complement C3 from macrophage)

L169 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:671402 HCAPLUS
DOCUMENT NUMBER: 121:271402
TITLE: Fractionation and antitumor activity of polysaccharides from **Grifola** frondosa mycelium
AUTHOR(S): **Zhuang, Cun**; Mizuno, Takashi; Ito, Hitoshi; Shimura, Keishiro; Sumiya, Toshimitsu; Kawade, Mitsuo; Inamori, Yoshihiko
CORPORATE SOURCE: United Grad. Sch. Agric. Sci., Gifu Univ., Gifu, 501-11, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (1994), 58(1), 185-88
CODEN: BBBIEJ; ISSN: 0916-8451
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors developed a method for the fractionation and purification of antitumor polysaccharides, considered to be a type of immunopotentiator or BRM (biol. response modifier), from the mycelium of liquid cultured **Grifola** frondosa. The active polysaccharide fractions that showed high inhibitory activity against sarcoma 180 were considered to be heteroglycans or their protein complexes as follows, in water-soluble fractions: FIo-a-α: fucogalactomannan-protein complex; FIo-a-β: mannogalactofucan; FA-1: galactoglucomannofucan-protein complex; FA-2-b-α: glucogalactomannan-protein complex; in water-insol. fractions: FIII-1-a: mannofucoglucoxylan: FIII-1-b: mannoglucofucoxylan-protein complex; FIII-2-a: mannofucoglucoxylan-protein complex; FIII-2-b: glucomannofucoxylan-protein complex.
CC 1-6 (Pharmacology)
ST antitumor **Grifola** polysaccharide
IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from **Grifola** frondosa, antitumor activity of)
IT **Grifola frondosa**
(polysaccharides from, antitumor activity of)
IT Neoplasm inhibitors
(sarcoma, polysaccharides from **Grifola** frondosa)

L169 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:477929 HCAPLUS
DOCUMENT NUMBER: 121:77929
TITLE: The host-mediated antitumor polysaccharides. XXII. Chemical modification and antitumor activation of polysaccharides from the mycelium of liquid-cultured **Grifola** frondosa

AUTHOR(S): **Zhuang, Cun**; Mizuno, Takashi; Ito, Hitoshi; Shimura, Keishiro
CORPORATE SOURCE: United Grad. Sch. Agric. Sci., Gifu Univ., Gifu, 501-11, Japan
SOURCE: Shizuoka Daigaku Nogakubu Kenkyu Hokoku (1994), Volume Date 1993, 43, 47-59
CODEN: SDNKAA; ISSN: 0559-8850
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Chemical modified products of natural polysaccharides from the title fungi exhibited antitumor activity. 5 Polyaldehydic- and 10 polyalcoholic polysaccharides prepared by Smith degradation, 4 formylated- and 4 formolysis products of the polysaccharides by formic acid degradation were prepared and their antitumor activities on Sarcoma 180 and their activities for the release of antigenic C3 in mice were examined Some prepns. from water-soluble polysaccharides showed enhanced activities than the starting polysaccharides.

CC 10-1 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 1, 33

ST **Grifola** polysaccharide chem modification antitumor

IT Polysaccharides, biological studies
RL: BIOL (Biological study)
(from **Grifola** frondosa, chemical modification and antitumor activation of)

IT Neoplasm inhibitors
(polysaccharides as, from **Grifola** frondosa)

IT **Grifola frondosa**
(polysaccharides from, chemical modification and antitumor activation of)

L169 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:513038 HCAPLUS
DOCUMENT NUMBER: 119:113038
TITLE: Host-mediated antitumor polysaccharides. XVIII. Detailed fractionation and antitumor activity of the mycelial polysaccharides from liquid culture of **Grifola** frondosa
AUTHOR(S): **Zhuang, Cun**; Mizuno, Takashi; Ito, Hitoshi; Shimura, Keishiro; Sumiya, Toshimitsu; Kawade, Mitsuo
CORPORATE SOURCE: Fac. Agric., Shizuoka Univ., Shizuoka, 422, Japan
SOURCE: Shizuoka Daigaku Nogakubu Kenkyu Hokoku (1993), Volume Date 1992, 42, 43-58
CODEN: SDNKAA; ISSN: 0559-8850
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Antitumor polysaccharides in mycelium and culture broth of **Grifola** frondosa fungus were fractionated, and their antitumor activity, composition and other properties were studied. The mycelium obtained by liquid culture was crushed with 99% EtOH, and **extracted** successively with hot H2O, 1% ammonium oxalate, and 5% NaOH to obtain 4 fractions: F I, F II, F III-1 and F III-2. Antitumor effects against Sarcoma 180 transplanted to mice were the highest, when given 10 .apprx. 20 mg daily, for the fraction F III-2. The active 4 fractions were subfractionated by chromatog. with DEAE-cellulose, Toyopearl HW-65 F, and Con A-AF-Formyl Toyopearl into 30 fractions. Fractions showing high antitumor activity were considered to be heteroglycans or their protein complex of **mol. weight** ranging from 12,800 to 65 + 104, e.g., fucogalactomannan-protein complex, mannogalactofucan, and galactoglucomannofucan-protein complex. Lower **mol. weight** components were obtained from concentrated culture media of G. frondosa by successive **extraction** with n-C6H14, EtOAc, and BuOH, to obtain fractions H-I, C-I, A-I, and P-1. When each of

fractions F I, F10-a (obtained from F I), F III-1, F III-2, and P-1 was administered to mice, an evident increase in the antigenic C3 release from macrophages acting as the biol. response modifier. The fraction C-I showed an evident growth inhibitory action (cytotoxicity) on human lymphocytic leukemia Molt 4B cells in vitro.

CC 10-1 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 1

ST antitumor polysaccharide **Grifola**; glycan protein complex
Grifola neoplasm inhibitor

IT **Glycoproteins**, biological studies
Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from **Grifola** frondosa, antitumor activity of)

IT **Grifola frondosa**
(polysaccharides from, antitumor activity of)

IT Neoplasm inhibitors
(polysaccharides of **Grifola** frondosa as)

IT 65431-06-3D, Fucogalactomannan, protein complexes 149315-89-9D, protein complexes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from **Grifola** frondosa, antitumor activity of)

L169 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:433186 HCAPLUS
DOCUMENT NUMBER: 111:33186
TITLE: Antitumor polysaccharides. XII. Immunostimulative antitumor effects of β-D-glucans and chitin substances isolated from some medicinal mushrooms
AUTHOR(S): Mizuno, Takashi; **Kawagishi, Hirokazu**; Ito, Hitoshi; Shimura, Keishiro
CORPORATE SOURCE: Fac. Agric., Shizuoka Univ., Shizuoka, 422, Japan
SOURCE: Shizuoka Daigaku Nogakubu Kenkyu Hokoku (1988), (38), 29-35
CODEN: SDNKAA; ISSN: 0559-8850
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB The polysaccharides β-D-glucans isolated from water or 5% NaOH exts. of Ganoderma lucidum, **Grifola** frondosa, and Agaricus blazei had antitumor effects in mice against sarcoma 180. Chitosan prepns. obtained from the above 3 mushrooms and com. chitin substances from crab crusts did not have antitumor effects.

CC 1-6 (Pharmacology)

IT Agaricus blazei
Ganoderma lucidum
Grifola frondosa
(chitins and glucans of, antitumor effect of)

L169 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:464715 HCAPLUS
DOCUMENT NUMBER: 107:64715
TITLE: Studies on the host-mediated antitumor polysaccharides. XI. Fractionation, characterization and formolysis of antitumor fibrous polysaccharides (noncellulose) from **Maitake**, the fruiting body of **Grifola** frondosa
AUTHOR(S): Mizuno, Takashi; **Kawagishi, Hirokazu**;

Mizuno, Kiyoshi
CORPORATE SOURCE: Fac. Agric., Shizuoka Univ., Shizuoka, 836, Japan
SOURCE: Shizuoka Daigaku Nogakubu Kenkyu Hokoku (1986), (36), 85-91
CODEN: SDNKAA; ISSN: 0559-8850
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Noncellulose fibrous β-glycan in cultivated **Maitake**, fruiting body of G. frondosa, and their antitumor activity were examined After extraction with 85% EtOH (80°), H2O (100°), 3% ammonium oxalate (100°) and 5% NaOH (30°), the residue was extracted with 5% NaOH containing 0.1% NaBH4 (80°), 20% NaOH containing 0.1% NaH4 (30°) and 5% LiCl solution in N,N'-dimethylacetamide (70°) to obtain polysaccharide fractions, A, B and C, resp., however, no material was extracted in B. AcOH and EtOH precipitation of A gave two β-glucans (I and II, resp.), and gel-filtration of C using Sepharose CL-4B eluted with 0.8M NaOH gave a chitosan (III). I-III were treated with 80% formic acid at 85° for 40-60 min to afford corresponding formyl polysaccharides and low-mol. weight polysaccharides. I and II were composed of glucose (Glc) as the main sugar and small amount of xylose and fucose, consisted of β-(1→3)-D-glucan branched with β-(1→6)-linkage with 4 Glc residues and average chain length of 8 and had average mol. weight 750,000 and 430,000, resp. III gave mainly glucosamine (95.4%) and a small amount of Glc by acid hydrolysis and was identified as chitosan by IR spectra and x-ray anal. II and low-mol. weight polysaccharides of I and II demonstrated host-mediated antitumor activity against Sarcoma 180 in mice on i.p. administration with ID50 48.5, 40.1 and 18.0 mg/kg, resp.

CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 1, 11

ST **Maitake** polysaccharide antitumor; **Grifola** polysaccharide antitumor

IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of **Grifola** frondosa fruit, antitumor activity of)

IT **Grifola frondosa**
(polysaccharides of, extraction and antitumor activity of)

IT Neoplasm inhibitors
(**Grifola** frondosa polysaccharides)

IT 9012-76-4, Chitosan 9051-97-2D, derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of **Grifola** frondosa fruit, antitumor activity of)

L169 ANSWER 22 OF 22 MEDLINE on STN
ACCESSION NUMBER: 2002155867 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11874441
TITLE: Effects of a water-soluble extract of **maitake** mushroom on circulating glucose/insulin concentrations in KK mice.
AUTHOR: Manohar V; Talpur N A; Echard B W; Lieberman S; **Preuss H G**
CORPORATE SOURCE: Department of Physiology, Georgetown University Medical

Center, Washington, DC 20007, USA.
SOURCE: Diabetes, obesity & metabolism, (2002 Jan) Vol. 4, No. 1, pp. 43-8.
Journal code: 100883645. ISSN: 1462-8902.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200204
ENTRY DATE: Entered STN: 13 Mar 2002
Last Updated on STN: 4 Apr 2002
Entered Medline: 3 Apr 2002

ABSTRACT:
AIM: We examined benefits of a water-soluble extract of **maitake** mushroom designated as Fraction X (FXM) on the glucose/insulin metabolism of insulin-resistant KK mice, and compared the results of FXM with those of a sulphonylurea, Glipizide. DESIGN: In several acute studies, insulin-resistant KK mice were gavaged with a single dose of varying concentrations of FXM, or a single dose of one concentration of the oral hypoglycaemic drug, Glipizide. In the one chronic study, KK mice were gavaged with FXM, Glipizide, or an equal volume of isotonic saline (baseline control) twice daily. Retro-orbital blood was drawn on the morning of the 4th and 7th days before the early gavage. Blood glucose was measured by routine laboratory procedures, and serum insulin was estimated by a radioimmunoassay (RIA) assay developed specifically for rodents. RESULTS: At a dose of FXM (140 mg/mouse), a statistically significant lowering of circulating glucose concentrations was again seen at 8-12 h and 16-18 h after oral gavage. The lowering approximated 25% of the original concentration. Oral gavage of Glipizide resulted in statistically significantly lower values of circulating glucose (25-37% lower compared with baseline) at 8-24 h post dosing. In the chronic study, the circulating concentrations of glucose and insulin of mice taking 140 mg FXM per day were decreased significantly at days 4 and 7. CONCLUSIONS: FXM, a natural extract obtained from **maitake** mushroom, favourably influences glucose/insulin metabolism in insulin-resistant KK mice. The lowering of both circulating glucose and insulin concentrations suggests that FXM works primarily by enhancing peripheral insulin sensitivity.

CONTROLLED TERM: *Agaricales
Animals
*Blood Glucose: ME, metabolism
Comparative Study
***Diabetes Mellitus: DT, drug therapy**
*Glipizide: PD, pharmacology
*Glucans: PD, pharmacology
Hypoglycemic Agents: PD, pharmacology
*Insulin: BL, blood
Insulin Resistance: PH, physiology
Mice
Mice, Inbred Strains
*Phytotherapy
*Plant Extracts: PD, pharmacology
CAS REGISTRY NO.: 11061-68-0 (Insulin); 29094-61-9 (Glipizide)
CHEMICAL NAME: 0 (Blood Glucose); 0 (Glucans); 0 (Hypoglycemic Agents); 0 (Plant Extracts)

=> TEXT SEARCH

```
=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 11:13:56 ON 03 MAY 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 3 May 2006  VOL 144 ISS 19
FILE LAST UPDATED: 2 May 2006  (20060502/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que L19

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7       110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L19          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7


=> d que L49

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7       110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L19          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L47     1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L49          13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L47


=> d que L54

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
```

```
L7        110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L19           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L47      1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L49           13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L47
L50       214354 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/OBI
L51       279379 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/BI
L52        31588 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/OBI
L53        34574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/BI
L54            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L50 OR L51 OR L52 OR L53)
                  AND (L19 OR L49)


=> d que L38

L1           525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2           493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3            92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4           578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5           582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L8         21998 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIDIABETIC?/OBI
L9         32219 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERTENSIVE?/OBI
L10         7461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIOBESITY?/OBI
L11        11551 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEMIC?/OBI
L12          497 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERLIPID?/OBI
L13        65053 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L8 OR L9 OR L10 OR L11 OR
                  L12)
L22        11582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEM?/OBI
L23        62013 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPERTENS?/OBI
L24        50378 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BLOOD PRESS?/OBI
L25        30252 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OBES?/OBI
L26        23975 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BODY WEIGHT/OBI
L27        14852 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BIOACTIV?/OBI
L28       169554 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR
                  L26 OR L27)
L29           23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L5
L31      2391101 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?PROTEIN?/BI
L32       357876 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SACCHAR?/BI
L34           25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L13
L35           36 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 OR L34
L37       118968 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND L32
L38            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 AND L35


=> d que L56

L1           525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2           493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3            92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4           578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5           582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7        110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L19           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L31      2391101 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?PROTEIN?/BI
L32       357876 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SACCHAR?/BI
L40           44 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L31 AND L32
L47      1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L55           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 AND L47
L56           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 NOT L19
```

```
=> d que L60

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L27       14852 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BIOACTIV?/OBI
L47     1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L58           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L27
L59      650480 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PURIF?/OBI OR ISOLAT?/OBI
L60           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L59 OR L47) AND L58


=> d que L69

L8        21998 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIDIABETIC?/OBI
L9        32219 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERTENSIVE?/OBI
L10        7461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIOBESITY?/OBI
L11       11551 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEMIC?/OBI
L12         497 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERLIPID?/OBI
L22       11582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEM?/OBI
L23       62013 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPERTENS?/OBI
L24       50378 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BLOOD PRESS?/OBI
L25       30252 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OBES?/OBI
L26       23975 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BODY WEIGHT/OBI
L66       91828 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/CW
L67        4489 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L66 (L) THU/RL
L69          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 (L) ((L8 OR L9 OR L10 OR
                L11 OR L12) OR (L22 OR L23 OR L24 OR L25 OR L26))


=> d que L152

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7       110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L8        21998 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIDIABETIC?/OBI
L9        32219 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERTENSIVE?/OBI
L10        7461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIOBESITY?/OBI
L11       11551 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEMIC?/OBI
L12         497 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERLIPID?/OBI
L13       65053 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L8 OR L9 OR L10 OR L11 OR
                L12)
L19          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L22       11582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEM?/OBI
L23       62013 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPERTENS?/OBI
L24       50378 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BLOOD PRESS?/OBI
L25       30252 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OBES?/OBI
L26       23975 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BODY WEIGHT/OBI
L27       14852 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BIOACTIV?/OBI
L28      169554 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR
                L26 OR L27)
L29          23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L5
L31     2391101 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?PROTEIN?/BI
L32      357876 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SACCHAR?/BI
L34          25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L13
```

```
L35          36 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 OR L34
L37      118968 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND L32
L38           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 AND L35
L40          44 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L31 AND L32
L47     1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L49          13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L47
L50      214354 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/OBI
L51      279379 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/BI
L52       31588 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/OBI
L53       34574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/BI
L54           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L50 OR L51 OR L52 OR L53)
                 AND (L19 OR L49)
L55          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 AND L47
L56          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 NOT L19
L58           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L27
L59      650480 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PURIF?/OBI OR ISOLAT?/OBI
L60           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L59 OR L47) AND L58
L66       91828 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/CW
L67        4489 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L66 (L) THU/RL
L69          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 (L) ((L8 OR L9 OR L10 OR
                 L11 OR L12) OR (L22 OR L23 OR L24 OR L25 OR L26))
L144         47 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 OR L49 OR L54 OR L38 OR
                 L56 OR L60 OR L69
L148     122674 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MOLECULAR WEIGHT/OBI
L149      98780 SEA FILE=HCAPLUS ABB=ON  PLU=ON  RATIO/OBI
L150     552714 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MOLECULAR WEIGHT/BI
L151           QUE  ABB=ON  PLU=ON  RATIO/BI
L152         12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L148 OR L149 OR L150 OR
                 L151) AND L144


=> d que L163

L1          525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2          493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3           92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4          578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5          582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L7       110962 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/OBI
L8        21998 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIDIABETIC?/OBI
L9        32219 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERTENSIVE?/OBI
L10        7461 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIOBESITY?/OBI
L11       11551 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEMIC?/OBI
L12         497 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIHYPERLIPID?/OBI
L13       65053 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L8 OR L9 OR L10 OR L11 OR
                 L12)
L19          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L7
L22       11582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPOLIPEM?/OBI
L23       62013 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HYPERTENS?/OBI
L24       50378 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BLOOD PRESS?/OBI
L25       30252 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OBES?/OBI
L26       23975 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BODY WEIGHT/OBI
L27       14852 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BIOACTIV?/OBI
L28      169554 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR
                 L26 OR L27)
L29          23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L5
L31     2391101 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?PROTEIN?/BI
L32      357876 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SACCHAR?/BI
L34          25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L13
L35          36 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 OR L34
```

```
L37       118968 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND L32
L38            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 AND L35
L40           44 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L31 AND L32
L47      1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L49           13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L47
L50       214354 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/OBI
L51       279379 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/BI
L52        31588 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/OBI
L53        34574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/BI
L54            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L50 OR L51 OR L52 OR L53)
                 AND (L19 OR L49)
L55           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 AND L47
L56           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 NOT L19
L58            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L27
L59       650480 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PURIF?/OBI OR ISOLAT?/OBI
L60            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L59 OR L47) AND L58
L66        91828 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLYCOPROTEIN?/CW
L67         4489 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L66 (L) THU/RL
L69           11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 (L) ((L8 OR L9 OR L10 OR
                 L11 OR L12) OR (L22 OR L23 OR L24 OR L25 OR L26))
L144          47 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 OR L49 OR L54 OR L38 OR
                 L56 OR L60 OR L69
L162               QUE  ABB=ON  PLU=ON  (?EXTRACT? OR ?PURIF? OR ?ISOLAT?)/B
                 I
L163          37 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L144 AND L162


=> d que L61

L1           525 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA/OBI
L2           493 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIFOLA+NT,OLD,UF/CT
L3            92 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MAITAKE/OBI
L4           578 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (GRIFOLA OR MAITAKE)/BI
L5           582 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4)
L31      2391101 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?PROTEIN?/BI
L32       357876 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SACCHAR?/BI
L40           44 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND L31 AND L32
L47      1093132 SEA FILE=HCAPLUS ABB=ON  PLU=ON  EXTRACT?/BI
L50       214354 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/OBI
L51       279379 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHANOL?/BI
L52        31588 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/OBI
L53        34574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ETHYL ALCOHOL?/BI
L55           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 AND L47
L61            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 AND (L50 OR L51 OR L52 OR
                 L53)


=> s (L19 or L49 or L54 or L38 or L56 or L60 or L69 or L152 or L163 or L61) not L166

L170          45 (L19 OR L49 OR L54 OR L38 OR L56 OR L60 OR L69 OR L152 OR L163
                 OR L61) NOT L166
```

printed with author search

```
=> file medline

FILE 'MEDLINE' ENTERED AT 11:14:05 ON 03 MAY 2006

 FILE LAST UPDATED: 2 MAY 2006 (20060502/UP).  FILE COVERS 1950 TO DATE.

 On December 11, 2005, the 2006 MeSH terms were loaded.
```

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> d que L79

L73          104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74           13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75           54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76          118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78       457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L79           10 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND (L77 OR L78)


=> d que L81

L73          104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74           13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75           54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76          118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78       457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L79           10 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND (L77 OR L78)
L80       339051 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?EXTRACT?
L81            2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 AND L80


=> d que L84

L73          104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74           13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75           54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76          118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L82       908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                 ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                 PRESS? OR BODY WEIGHT
L84           15 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 AND L76


=> d que L95

L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78       457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L80       339051 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?EXTRACT?
L82       908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                 ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
```

```
                PRESS? OR BODY WEIGHT
L89        63947 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR
                PK OR AD)/CT
L92        82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L95            3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89 AND L80


=> d que L102

L73          104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74           13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75           54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76          118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78       457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L82       908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L89        63947 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR
                PK OR AD)/CT
L92        82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L93          116 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89
L98         1331 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTI-OBES?
L99           10 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) AND L98
L100         125 SEA FILE=MEDLINE ABB=ON  PLU=ON  L93 OR L99
L102           0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L76


=> d que L101

L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78       457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L82       908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L86        20281 SEA FILE=MEDLINE ABB=ON  PLU=ON  BIOACTIV? OR BIO ACTIV?
L89        63947 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR
                PK OR AD)/CT
L92        82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L93          116 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89
L98         1331 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTI-OBES?
L99           10 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) AND L98
L100         125 SEA FILE=MEDLINE ABB=ON  PLU=ON  L93 OR L99
L101           2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L86


=> d que L104

L77       176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L82       908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L92        82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L103        6543 SEA FILE=MEDLINE ABB=ON  PLU=ON  L77 (L) (TO OR PD OR PK OR
                AD)/CT
L104           6 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L92


=> d que L107
```

```
L77      176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L82      908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L103       6543 SEA FILE=MEDLINE ABB=ON  PLU=ON  L77 (L) (TO OR PD OR PK OR
                AD)/CT
L106      30353 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) (TU OR PD OR PK OR
                AD)/CT
L107          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L106


=> d que L155

L73         104 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA
L74          13 SEA FILE=MEDLINE ABB=ON  PLU=ON  GRIFOLA+NT/CT
L75          54 SEA FILE=MEDLINE ABB=ON  PLU=ON  MAITAKE
L76         118 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L73 OR L74 OR L75)
L77      176797 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?GLYCOPROTEIN?
L78      457076 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLYCOPROTEINS+NT/CT
L79          10 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 AND (L77 OR L78)
L80      339051 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?EXTRACT?
L81           2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 AND L80
L82      908426 SEA FILE=MEDLINE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                PRESS? OR BODY WEIGHT
L84          15 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 AND L76
L86       20281 SEA FILE=MEDLINE ABB=ON  PLU=ON  BIOACTIV? OR BIO ACTIV?
L89       63947 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) (L) (TU OR PD OR
                PK OR AD)/CT
L92       82526 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) DT/CT
L93         116 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89
L95           3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L92 AND L89 AND L80
L98        1331 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTI-OBES?
L99          10 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L77 OR L78) AND L98
L100        125 SEA FILE=MEDLINE ABB=ON  PLU=ON  L93 OR L99
L101          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L86
L102          0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L100 AND L76
L103       6543 SEA FILE=MEDLINE ABB=ON  PLU=ON  L77 (L) (TO OR PD OR PK OR
                AD)/CT
L104          6 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L92
L106      30353 SEA FILE=MEDLINE ABB=ON  PLU=ON  L82 (L) (TU OR PD OR PK OR
                AD)/CT
L107          2 SEA FILE=MEDLINE ABB=ON  PLU=ON  L103 AND L106
L117         36 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 OR L81 OR L84 OR L95 OR
                (L101 OR L102) OR L104 OR L107
L153     196498 SEA FILE=MEDLINE ABB=ON  PLU=ON  MOLECULAR WEIGHT
L154     401681 SEA FILE=MEDLINE ABB=ON  PLU=ON  RATIO
L155          7 SEA FILE=MEDLINE ABB=ON  PLU=ON  L117 AND (L153 OR L154)


=> s (L79 or L81 or L84 or L95 or L102 or L101 or L104 or L107 or L155) not L167

L171         31 (L79 OR L81 OR L84 OR L95 OR L102 OR L101 OR L104 OR L107 OR
                L155) NOT L167
```

→ printed with author search

```
=> file embase

FILE 'EMBASE' ENTERED AT 11:14:15 ON 03 MAY 2006
```

FILE COVERS 1974 TO 2 May 2006 (20060502/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que L124

```
L119        123 SEA FILE=EMBASE ABB=ON  PLU=ON  GRIFOLA
L120        283 SEA FILE=EMBASE ABB=ON  PLU=ON  GRIFOL?
L121         58 SEA FILE=EMBASE ABB=ON  PLU=ON  MAITAKE
L122      97987 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN?
L123     203474 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN+NT/CT
L124         16 SEA FILE=EMBASE ABB=ON  PLU=ON  (L119 OR L120 OR L121) AND
                   (L122 OR L123)
```

=> d que L136

```
L122      97987 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN?
L125     718137 SEA FILE=EMBASE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                   ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                   PRESS? OR BODY WEIGHT
L126        431 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTI-OBES?
L130       1839 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 (L) (DT OR AD OR DO OR PK
                   OR PD)/CT
L132      89883 SEA FILE=EMBASE ABB=ON  PLU=ON  ((L125 OR L126)) (L) DT/CT
L134      66371 SEA FILE=EMBASE ABB=ON  PLU=ON  L132/MAJ
L135        953 SEA FILE=EMBASE ABB=ON  PLU=ON  L130/MAJ
L136          4 SEA FILE=EMBASE ABB=ON  PLU=ON  L134 AND L135
```

=> d que L141

```
L122      97987 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN?
L125     718137 SEA FILE=EMBASE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                   ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                   PRESS? OR BODY WEIGHT
L126        431 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTI-OBES?
L130       1839 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 (L) (DT OR AD OR DO OR PK
                   OR PD)/CT
L132      89883 SEA FILE=EMBASE ABB=ON  PLU=ON  ((L125 OR L126)) (L) DT/CT
L134      66371 SEA FILE=EMBASE ABB=ON  PLU=ON  L132/MAJ
L135        953 SEA FILE=EMBASE ABB=ON  PLU=ON  L130/MAJ
L139          8 SEA FILE=EMBASE ABB=ON  PLU=ON  L134 AND L130
L140          8 SEA FILE=EMBASE ABB=ON  PLU=ON  L135 AND L132
L141         12 SEA FILE=EMBASE ABB=ON  PLU=ON  (L139 OR L140)
```

=> d que L158

```
L119        123 SEA FILE=EMBASE ABB=ON  PLU=ON  GRIFOLA
L120        283 SEA FILE=EMBASE ABB=ON  PLU=ON  GRIFOL?
L121         58 SEA FILE=EMBASE ABB=ON  PLU=ON  MAITAKE
L122      97987 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN?
L123     203474 SEA FILE=EMBASE ABB=ON  PLU=ON  GLYCOPROTEIN+NT/CT
```

```
L124          16 SEA FILE=EMBASE ABB=ON  PLU=ON  (L119 OR L120 OR L121) AND
                 (L122 OR L123)
L125      718137 SEA FILE=EMBASE ABB=ON  PLU=ON  ?DIABET? OR ?HYPERTENS? OR
                 ?HYPOLIPEM? OR OBES? OR ANTIOBES? OR ?HYPERLIPID? OR BLOOD
                 PRESS? OR BODY WEIGHT
L126         431 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTI-OBES?
L130        1839 SEA FILE=EMBASE ABB=ON  PLU=ON  L122 (L) (DT OR AD OR DO OR PK
                 OR PD)/CT
L132       89883 SEA FILE=EMBASE ABB=ON  PLU=ON  ((L125 OR L126)) (L) DT/CT
L134       66371 SEA FILE=EMBASE ABB=ON  PLU=ON  L132/MAJ
L135         953 SEA FILE=EMBASE ABB=ON  PLU=ON  L130/MAJ
L136           4 SEA FILE=EMBASE ABB=ON  PLU=ON  L134 AND L135
L139           8 SEA FILE=EMBASE ABB=ON  PLU=ON  L134 AND L130
L140           8 SEA FILE=EMBASE ABB=ON  PLU=ON  L135 AND L132
L141          12 SEA FILE=EMBASE ABB=ON  PLU=ON  (L139 OR L140)
L143          28 SEA FILE=EMBASE ABB=ON  PLU=ON  L124 OR L136 OR L141
L156      116135 SEA FILE=EMBASE ABB=ON  PLU=ON  MOLECULAR WEIGHT
L157      372380 SEA FILE=EMBASE ABB=ON  PLU=ON  RATIO
L158           3 SEA FILE=EMBASE ABB=ON  PLU=ON  (L156 OR L157) AND L143


=> s (L124 or L136 or L141 or L158) not L168

L172          27 (L124 OR L136 OR L141 OR L158) NOT L168
```

printed with author search

```
=> dup rem L170 L171 L172
FILE 'HCAPLUS' ENTERED AT 11:14:39 ON 03 MAY 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 11:14:39 ON 03 MAY 2006

FILE 'EMBASE' ENTERED AT 11:14:39 ON 03 MAY 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.
PROCESSING COMPLETED FOR L170
PROCESSING COMPLETED FOR L171
PROCESSING COMPLETED FOR L172
L173          99 DUP REM L170 L171 L172 (4 DUPLICATES REMOVED)
                 ANSWERS '1-45' FROM FILE HCAPLUS
                 ANSWERS '46-76' FROM FILE MEDLINE
                 ANSWERS '77-99' FROM FILE EMBASE

=> d ibib abs hitind L173 1-45; d iall L173 46-99

L173 ANSWER 1 OF 99  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2004:548967  HCAPLUS
DOCUMENT NUMBER:          141:260962
TITLE:                    Synthesis and antitumor activities of glucan
                          derivatives
AUTHOR(S):                Du, Yuguo; Gu, Guofeng; Hua, Yuxia; Wei, Guohua; Ye,
                          Xinshan; Yu, Guangli
CORPORATE SOURCE:         Research Center for Eco-Environmental Sciences,
                          Chinese Academy of Sciences, Beijing, 100085, Peop.
                          Rep. China
SOURCE:                   Tetrahedron (2004), 60(30), 6345-6351
                          CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER:                Elsevier Science B.V.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
```

OTHER SOURCE(S): CASREACT 141:260962
AB A highly efficient and practical method for the preparation of β-D-Glc-(1→6)-[β-D-Glc-(1→3)]-β-D-Glc-(1→6)-β-D-Glc-(1→6)-[β-D-Glc-(1→3)]-D-Glc-OMe was described. A dendritic nona-saccharide was also synthesized. The antitumor activities of hexasaccharide, the dendrimer, their sulfated derivs., together with the natural glucan-protein and the corresponding polysaccharide **isolated** from barmy mycelium of **Grifola** frondosa, were preliminarily investigated based on Sarcoma-180 studies in mice tests. Our results suggest that the sulfated branching oligosaccharide and natural glycoprotein have better antitumor activities comparing to the parent sugar residue (oligosaccharide or polysaccharide).
CC 33-5 (Carbohydrates)
Section cross-reference(s): 1, 11
ST dendrimer oligosaccharide polysaccharide Prepn antitumor glucan protein **glycoprotein**
IT Polysaccharides, preparation
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(barmy mycelium of **Grifola** frondosa; synthesis and antitumor activities of glucan dendrimers)
IT Antitumor agents
Grifola frondosa
Neoplasm
(synthesis and antitumor activities of glucan dendrimers)
IT Dendritic polymers
Glycoproteins
Oligosaccharides, preparation
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antitumor activities of glucan dendrimers)
IT 9041-22-9DP, β-D-Glucan, branched 53238-80-5P 753450-31-6DP, protein bound
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(from barmy mycelium of **Grifola** frondosa (**Maitake**); synthesis and antitumor activities of glucan dendrimers)
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 2 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2004:760784 HCAPLUS
DOCUMENT NUMBER: 141:235508
TITLE: Cellular and physiological effects of Ganoderma lucidum (Reishi)
AUTHOR(S): Sliva, Daniel
CORPORATE SOURCE: Cancer Research Laboratory, Methodist Research Institute, Clarian Health Partners Inc., Indianapolis, IN, USA
SOURCE: Mini-Reviews in Medicinal Chemistry (2004), 4(8), 873-879
CODEN: MMCIAE; ISSN: 1389-5575
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. In Asia, a variety of dietary products have been used for centuries as popular remedies to prevent or treat different diseases. A large number of herbs and **exts.** from medicinal mushrooms are used

for the treatment of diseases. Mushrooms such as Ganoderma lucidum (Reishi), Lentinus edodes (Shiitake), **Grifola** frondosa (**Maitake**), Hericium erinaceum (Yamabushitake), and Inonotus obliquus (Chaga) have been collected and consumed in China, Korea, and Japan for centuries. Until recently, these mushrooms were largely unknown in the West and were considered "fungi" without any nutritional value. However, most mushrooms are rich in vitamins, fiber, and amino acids and low in fat, cholesterol, and calories. These mushrooms contain a large variety of biol. active **polysaccharides** with immunostimulatory properties, which contribute to their anticancer effects. Furthermore, other bioactive substances, including triterpenes, **proteins**, lipids, cerebrosides, and phenols, have been identified and characterized in medicinal mushrooms. This review summarizes the biol. effects of Ganoderma lucidum upon specific signaling mols. and pathways, which are responsible for its therapeutic effects.

CC 1-0 (Pharmacology)

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 3 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:351396 HCAPLUS

TITLE: Polycystic ovary syndrome and grislin in **Maitake** mushroom

AUTHOR(S): Anzai, Hideo

CORPORATE SOURCE: Ridgewood, NJ, USA

SOURCE: Aromatopia (2006), 75, 47-52
CODEN: AROMFS; ISSN: 0918-4295

PUBLISHER: Fureguransu Janarusha

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review on the clin. symptoms of polycystic ovary syndrome (PCOS), physiol. functions of insulin and insulin resistance, diseases caused by insulin resistance, roles of insulin in PCOS, problems in the treatment of PCOS, blood glucose and pressure lowering effects of a glycoprotein (grislin) **extracted** from **Grifola** frondosa, effects of grislin on type 2 diabetes mellitus, and ovulation induction in humans with PCOS by grislin.

CC 1-0 (Pharmacology)
Section cross-reference(s): 2, 14

IT **Glycoproteins**
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(grislin; treatment of polycystic ovary syndrome and insulin resistance by grislin from **Maitake** mushroom)

IT Ovary, disease
(polycystic; treatment of polycystic ovary syndrome and insulin resistance by grislin from **Maitake** mushroom)

IT Antidiabetic agents
Grifola frondosa
Human
Ovulation induction
(treatment of polycystic ovary syndrome and insulin resistance by grislin from **Maitake** mushroom)

IT 9004-10-8, Insulin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(resistance; treatment of polycystic ovary syndrome and insulin resistance by grislin from **Maitake** mushroom)

L173 ANSWER 4 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1335277 HCAPLUS

DOCUMENT NUMBER: 144:65954
TITLE: Wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their commercial uses
INVENTOR(S): Short, Jay M.; Kretz, Keith A.; Gray, Kevin A.; Barton, Nelson Robert; Garrett, James B.; O'Donoghue, Eileen; Baum, William; Robertson, Dan E.; Zorner, Paul
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 82 pp., Cont.-in-part of U.S. Ser. No. 866,379.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005281792	A1	20051222	US 2004-933115	20040901
US 5876997	A	19990302	US 1997-910798	19970813
EP 1600505	A1	20051130	EP 2005-13009	19980813
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
US 6110719	A	20000829	US 1999-259214	19990301
US 6190897	B1	20010220	US 1999-291931	19990413
US 6183740	B1	20010206	US 1999-318528	19990525
US 6720014	B1	20040413	US 2000-580515	20000525
US 2002136754	A1	20020926	US 2001-866379	20010524
US 6855365	B2	20050215		
AU 2004205269	A1	20040923	AU 2004-205269	20040826
WO 2006028684	A2	20060316	WO 2005-US29621	20050818
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.:		
US 1997-910798	A3	19970813
US 1999-259214	A1	19990301
US 1999-291931	A2	19990413
US 1999-318528	A2	19990525
US 2000-580515	A2	20000525
US 2001-866379	A2	20010524
EP 1998-940861	A3	19980813
AU 2001-78247	A3	20011005
US 2004-933115	A	20040901

AB In one aspect, the invention provides a **purified** and modified phytase enzyme from Escherichia coli K12 appA phytase. The modified enzyme comprises 8 amino acid substitutions (W68E/Q84W/A95P/K97C/S168E/R181Y/N226C/Y277D) and has phytase activity and improved thermal tolerance as compared with the wild-type enzyme. In addition, the enzyme has improved protease stability at low pH. Glycosylation of the modified phytase provides a further improved enzyme having improved thermal tolerance and protease stability. The enzyme can be produced from native or recombinant host cells and can be used to aid in the digestion of phytate where

desired. In one aspect, the phytase of the present invention can be used in foodstuffs to improve the feeding value of phytate-rich ingredients.

IC ICM A61K045-00
ICS C12N009-16; A61K038-46
INCL 424093450; 424094600
CC 7-2 (Enzymes)
Section cross-reference(s): 1, 3, 9, 10, 17, 19
IT Wastewater treatment
Water **purification**
(degrading phytic acid; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)
IT **Proteins**
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(egg, formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)
IT Citrus paradisi
Silybum marianum
(**extract**, formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)
IT Embryophyta
Plants
(**exts.**, formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)
IT Acacia greggii
Acanthopanax senticosus
Agropyron
Algae
Allium sativum
Aloe barbadensis
Angelica sinensis
Astragalus
Bacillus (bacterium genus)
Bacillus coagulans
Bifidobacterium
Bifidobacterium bifidum
Black cohosh
Bran
Brewers' yeast
Carica papaya
Cassia
Centella asiatica
Chlorella
Daphnia salina
Dioscorea
Echinacea
Enterococcus
Equisetum
Escherichia
Eucalyptus
Ginkgo biloba
Glycine max
Grifola frondosa
Herb
Hordeum
Hydrastis
Lactobacillus
Lactobacillus acidophilus
Lactobacillus casei
Lactobacillus plantarum
Lactobacillus rhamnosus

Lentinula edodes
Lepidium peruvianum
Leuzea
Malpighia
Medicago sativa
Morinda citrifolia
Mushroom
Panax
Panax quinquefolium
Parthenium hysterophorus
Petroselinum crispum
Pfaffia paniculata
Propolis
Pygeum
Rhodiola
Rhodymenia
Royal jelly
Saccharomyces
Salix
Schisandra
Seaweed
Serenoa repens
Smilax
Spirulina
Streptococcus thermophilus
Tabebuia
Vaccinium myrtillus
Wheat bran
Whey
Yucca
Zingiber officinale
(formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)

IT **Proteins**
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(milk, formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)

IT **Proteins**
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(rice, formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)

IT **Proteins**
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(soybean, formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)

IT Antiosteoporotic agents
DNA sequences
Escherichia coli
Feed additives
Immobilization, molecular or cellular
Mutagenesis
Protein engineering
Protein sequences
(wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)

IT 50-14-6, Vitamin D2 50-81-7, Vitamin C, biological studies 50-99-7, D-Glucose, biological studies 52-90-4, L-Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, L-Glutamine, biological studies

56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamin, biological studies 59-67-6, Nicotinic acid, biological studies 60-18-4, L-Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 62-49-7, Choline 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-23-6, Pyridoxine 67-97-0, Vitamin D3 68-19-9, Cyanocobalamin 70-47-3, L-Asparagine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-31-4, Melatonin 73-32-5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 79-83-4, Pantothenic acid 83-88-5, Riboflavin, biological studies 87-89-8, Inositol 107-35-7, Taurine 117-39-5, Quercitin 147-85-3, L-Proline, biological studies 150-13-0, PABA 303-98-0, Coenzyme Q10 520-91-2, Vitamin D1 1200-22-2, α-Lipoic acid 1340-08-5, Vitamin P 1406-16-2, Vitamin D 1406-18-4, Vitamin E 3416-24-8, Glucosamine 7235-40-7, β-Carotene 7429-90-5, Aluminum, biological studies 7429-91-6, Dysprosium, biological studies 7439-88-5, Iridium, biological studies 7439-89-6, Iron, biological studies 7439-91-0, Lanthanum, biological studies 7439-93-2, Lithium, biological studies 7439-94-3, Lutetium, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7439-98-7, Molybdenum, biological studies 7440-00-8, Neodymium, biological studies 7440-02-0, Nickel, biological studies 7440-03-1, Niobium, biological studies 7440-04-2, Osmium, biological studies 7440-05-3, Palladium, biological studies 7440-06-4, Platinum, biological studies 7440-09-7, Potassium, biological studies 7440-10-0, Praseodymium, biological studies 7440-12-2, Promethium, biological studies 7440-15-5, Rhenium, biological studies 7440-16-6, Rhodium, biological studies 7440-17-7, Rubidium, biological studies 7440-18-8, Ruthenium, biological studies 7440-19-9, Samarium, biological studies 7440-20-2, Scandium, biological studies 7440-21-3, Silicon, biological studies 7440-22-4, Silver, biological studies 7440-23-5, Sodium, biological studies 7440-24-6, Strontium, biological studies 7440-25-7, Tantalum, biological studies 7440-27-9, Terbium, biological studies 7440-29-1, Thorium, biological studies 7440-30-4, Thulium, biological studies 7440-31-5, Tin, biological studies 7440-32-6, Titanium, biological studies 7440-33-7, Tungsten, biological studies 7440-36-0, Antimony, biological studies 7440-39-3, Barium, biological studies 7440-41-7, Beryllium, biological studies 7440-42-8, Boron, biological studies 7440-43-9, Cadmium, biological studies 7440-45-1, Cerium, biological studies 7440-46-2, Cesium, biological studies 7440-47-3, Chromium, biological studies 7440-48-4, Cobalt, biological studies 7440-50-8, Copper, biological studies 7440-52-0, Erbium, biological studies 7440-53-1, Europium, biological studies 7440-54-2, Gadolinium, biological studies 7440-55-3, Gallium, biological studies 7440-56-4, Germanium, biological studies 7440-57-5, Gold, biological studies 7440-58-6, Hafnium, biological studies 7440-60-0, Holmium, biological studies 7440-62-2, Vanadium, biological studies 7440-64-4, Ytterbium, biological studies 7440-65-5, Yttrium, biological studies 7440-66-6, Zinc, biological studies 7440-67-7, Zirconium, biological studies 7440-69-9, Bismuth, biological studies 7440-70-2, Calcium, biological studies 7440-74-6, Indium, biological studies 7553-56-2, Iodine, biological studies 7704-34-9, Sulfur, biological studies 7723-14-0, Phosphorus, biological studies 7726-95-6, Bromine, biological studies 7782-41-4, Fluorine, biological studies 7782-49-2, Selenium, biological studies 8049-47-6, Pancreatin 8063-16-9, Psyllium 9000-82-2, Acetylesterase 9000-92-4, Amylase 9001-09-6, Chymopapain 9001-42-7, Maltase 9001-54-1, Hyaluronidase 9001-57-4, Invertase 9001-62-1, Lipase 9001-73-4, Papain 9001-75-6, Pepsin 9001-90-5,

Plasmin 9001-92-7, **Proteinase** 9001-98-3, Rennin 9007-27-6, Chondroitin 9012-54-8, Cellulase 9013-93-8, Phospholipase 9015-75-2, Pectate lyase 9025-35-8 9025-37-0, Endo-1,3-β-Glucanase 9025-43-8 9025-56-3, Hemicellulase 9025-98-3, Pectin esterase 9031-11-2, Lactase 9032-08-0, Glucoamylase 9032-75-1, Pectinase 9033-35-6, Pectin lyase 9074-98-0 9075-84-7, Endo-1,3-α-Glucanase 10043-52-4, Calcium chloride, biological studies 11032-49-8, Vitamin K2 11104-38-4, Vitamin K1 12001-79-5, Vitamin K 13494-80-9, Tellurium, biological studies 16887-00-6, Chloride, biological studies 16984-48-8, Fluoride, biological studies 24959-67-9, Bromide, biological studies 37278-89-0, Xylanase 37288-49-6, endo-1,2-β-Glucanase 37288-58-7, Exo-poly-α-Galacturonosidase 37325-54-5, Arabinanase 37332-39-1, Arabinoxylanase 39346-28-6, Galactanase 51377-41-4, Cutinase 58182-40-4, Arabinogalactan endo-1,4-β-galactosidase 60748-69-8, Mannanase 62213-14-3, β-1,3(4)-Endoglucanase 62213-17-6, Arabinogalactan endo-1,3-β-galactosidase 74191-29-0, Endoglucanase 125858-89-1, Xylosidase 131384-64-0, Rhamnogalacturonase 148093-36-1, Rhamnogalacturonan acetyl esterase 150977-36-9, Bromelain 158886-11-4, Rhamnogalacturonan-α-rhamnosidase 188959-24-2, Xylan acetyl esterase
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(formulation containing; wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their com. uses)

L173 ANSWER 5 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:547044 HCAPLUS
DOCUMENT NUMBER: 143:76253
TITLE: cDNA microarray technology identifies obesity-related gene expression profiles in fat tissue, which may be useful for development of obesity treatments in humans
INVENTOR(S): Clerc, Roger G.; Duchateau-Nguyen, Guillemette; Gardes, Christophe; Mizrahi, Jacques; Ostenson, Claes-Goran
PATENT ASSIGNEE(S): Switz.
SOURCE: U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005136465	A1	20050623	US 2004-19829	20041222
EP 1548445	A2	20050629	EP 2004-29641	20041215
EP 1548445	A3	20051123		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
CA 2487098	AA	20050622	CA 2004-2487098	20041221
JP 2005176846	A2	20050707	JP 2004-370470	20041222
CN 1661110	A	20050831	CN 2004-10104569	20041222

PRIORITY APPLN. INFO.: EP 2003-104902 A 20031222

AB The present invention relates to novel targets for identifying compds. that may be useful for the prevention and treatment of obesity. CDNA microarray anal., using RNA **extracted** from human fat tissue, was performed to identify obesity-related changes in gene expression profiles. A total of 146 candidate gene or protein sequences were identified. The goal of this work is to develop preventions or treatments for obesity in humans.

IC ICM C12Q001-68
INCL 435006000
CC 14-14 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1, 3, 6, 7
IT **Glycoproteins**
RL: BSU (Biological study, unclassified); PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(ZAG (zinc-α2-glycoprotein); cDNA microarray technol. identifies **obesity**-related gene expression profiles in fat tissue, which may be useful for development of **obesity** treatments in humans)

L173 ANSWER 6 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:992553 HCAPLUS
DOCUMENT NUMBER: 144:121062
TITLE: Doxorubicin coupled to lactosaminated albumin inhibits the growth of hepatocellular carcinomas induced in rats by diethylnitrosamine
AUTHOR(S): Fiume, Luigi; Bolondi, Luigi; Busi, Corrado; Chieco, Pasquale; Kratz, Felix; Lanza, Marcella; Mattioli, Alessandro; Di Stefano, Giuseppina
CORPORATE SOURCE: Department of Experimental Pathology, University of Bologna, Bologna, 14 40126, Italy
SOURCE: Journal of Hepatology (2005), 43(4), 645-652
CODEN: JOHEEC; ISSN: 0168-8278
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Background/Aims: The hepatocyte receptor for asialoglycoproteins internalizes galactosyl terminating macromols. which can be used as hepatotropic drug carriers. Since this receptor is also expressed on the cells of well differentiated human hepatocellular carcinomas (HCCs), we studied whether conjugation of doxorubicin (DOXO) with lactosaminated human albumin (L-HSA) increases the drug efficacy on HCCs induced in rats by diethylnitrosamine (DENA). Methods: DENA was given in the drinking water for 8 wk. One week after the last day of DENA administration, animals were randomly assigned to three groups. Each group was administered with either saline, free or coupled DOXO (1 μg/g). Rats received 4 weekly i.v. injections. One week after the last administration, rats were killed and HCC development was evaluated by counting the tumor nodules on the surface of hepatic lobes. Results: In rats treated with L-HSA coupled DOXO the number of neoplastic nodules was significantly lower ($P<0.05$) than that counted in animals injected with saline or with free DOXO. Coupled DOXO did not decrease body rat weight, which was markedly reduced by the free drug. Conclusions: Conjugation with L-HSA increased the antineoplastic efficacy and decreased the systemic toxicity of DOXO administered to rats with HCCs produced by DENA.
CC 1-6 (Pharmacology)
IT **Glycoproteins**
RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(neoglycoproteins, galactosyl terminating; galactosyl terminating neoglycoprotein L-HSA with DOXO showed anticancer activity by reducing hepatocellular carcinoma nodules and showed no decrease in **body weight** in hepatocellular carcinoma)
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 7 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:585233 HCAPLUS

DOCUMENT NUMBER: 143:266216
TITLE: Formulation and in vitro/in vivo evaluation of combining DNA repair and immune enhancing nutritional supplements
AUTHOR(S): Pero, R. W.; Amiri, A.; Sheng, Y.; Welther, M.; Rich, M.
CORPORATE SOURCE: Department of Cell and Molecular Biology, Section for Tumor Immunology, University of Lund, Lund, Swed.
SOURCE: Phytomedicine (2005), 12(4), 255-263
CODEN: PYTOEY; ISSN: 0944-7113
PUBLISHER: Elsevier GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Combining nutritional supplements to achieve synergistic benefit is a common practice in the nutraceutical industry. However, establishing added health benefit from a combination of natural ingredients is often assumed, untested and without regard to the principle of metabolic competition between the active components. Here, we report on the combination of a cat's claw water **extract** (C-Med-100, carboxy alkyl esters = active ingredients) + medicinal mushroom **exts.** (Cordyceps sinensis, **Grifola** blazei, **Grifola** frondosa, Trametes versicolor and Ganoderma lucidum, **polysaccharides** = active ingredients) + nicotinamide + zinc into a formulation designed to optimize different modes of immunostimulatory action, and yet that would avoid metabolic antioxidant competition yielding less than expected efficacious effects. Isobole curve analyses of these two active classes of ingredients determined by growth inhibition of HL-60 human leukemic cells in vitro confirmed they were indeed synergistic when in combination, and not metabolically competitive. Furthermore, an in vivo study showed significant health benefit for 14 subjects treated for 4 wk with the unique C-Med-100/mushroom **extract** formulation in that they had reduced pain, reduced fatigue, weight loss and a reduced presence of DNA damage in peripheral blood assessed by (8-OH) guanine DNA adducts and elevation in serum **protein** thiols. Because this broad-based panel of clin. parameters indicating clin. efficacy has never been demonstrated before for either of the active ingredients evaluated alone in humans, these data were taken as strong evidence that the combination of C-Med-100 + mushroom **exts.** + nicotinamide + zinc gave additive or synergistic effects to health benefit, and thus supported no efficacious limits from metabolic competition regarding this particular formulation.

CC 18-7 (Animal Nutrition)
Section cross-reference(s): 1, 13

IT Uncaria tomentosa
(aqueous **extract**, C-Med-100; formulation and in vitro/in vivo evaluation of combining DNA repair and immune enhancing nutritional supplements)

IT Mushroom
(**exts.** formula; formulation and in vitro/in vivo evaluation of combining DNA repair and immune enhancing nutritional supplements)

IT **Body weight**
(loss; formulation and in vitro/in vivo evaluation of combining DNA repair and immune enhancing nutritional supplements)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 8 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1269742 HCAPLUS
DOCUMENT NUMBER: 144:337685
TITLE: Physical and chemical properties and chemical

structure of polysaccharide fraction PGF-2 from **Grifola** frondosa

AUTHOR(S): Li, Xiaoding; Ouyang, Tianzhi; Rong, Jianhua; Wu, Moucheng

CORPORATE SOURCE: College of Food Science and Technology, Huazhong Agricultural University, Wuhan, 430070, Peop. Rep. China

SOURCE: Junwu Xuebao (2005), 24(2), 245-250
CODEN: JXUUAE; ISSN: 1672-6472

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The phys. and chemical properties and chemical structure of a polysaccharide fraction, PGF-2, from **Grifola** frondosa were studied mainly by instrumental anal. The polysaccharide fraction (PGF-2) was prepared from crude polysaccharide (PGF), using DEAE-Sephadex A-25 chromatog. PGF-2 was a glycoprotein. The polysaccharide content was 95.4% and the protein content was 2.25%. The sugar part of PGF-2 was non-starch neutral sugar. PGF-2 showed to be homogeneous by paper chromatog. and Sephadex G-200 chromatog. Its numeral average **mol. weight** was 118803 Dal and weight average **mol. weight** was 119612 Dal by gel permeation chromatog. PGF-2 was composed of glucose, mannose and galactose with the molar **ratio** of 1:2.35:1.22 and 16 kinds of amino acids by GC and HPLC anal. IR and NMR illustrated that PGF-2 mainly contained α-glucosidic bonds. β-Elimination reaction showed that the linkage between sugars and amino acid was the form of -O-Ser.

CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 11

ST **Grifola** polysaccharide **glycoprotein** compn structure

IT Oligosaccharides, biological studies
RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(O-linked; phys. and chemical properties and chemical structure of polysaccharide fraction PGF-2 from **Grifola** frondosa)

IT NMR (nuclear magnetic resonance)
(chemical shift; phys. and chemical properties and chemical structure of polysaccharide fraction PGF-2 from **Grifola** frondosa)

IT **Grifola frondosa**
Molecular weight
(phys. and chemical properties and chemical structure of polysaccharide fraction PGF-2 from **Grifola** frondosa)

IT Amino acids, biological studies
Glycoproteins
Natural products, pharmaceutical
Polysaccharides, biological studies
RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(phys. and chemical properties and chemical structure of polysaccharide fraction PGF-2 from **Grifola** frondosa)

IT 50-99-7P, Glucose, biological studies 52-90-4P, Cysteine, biological studies 56-84-8P, Aspartic acid, biological studies 59-23-4P, Galactose, biological studies 60-18-4P, Tyrosine, biological studies 63-91-2P, Phenylalanine, biological studies 74-79-3P, Arginine, biological studies 3458-28-4P, Mannose
RL: NPO (Natural product occurrence); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(phys. and chemical properties and chemical structure of polysaccharide

fraction PGF-2 from **Grifola** frondosa)

L173 ANSWER 9 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:498713 HCAPLUS
DOCUMENT NUMBER: 143:259127
TITLE: Potential role of medicinal mushrooms in breast cancer treatment: Current knowledge and future perspectives
AUTHOR(S): Petrova, Roumyana D.; Wasser, Solomon P.; Mahajna, Jamal A.; Denchev, Cvetomir M.; Nevo, Eviatar
CORPORATE SOURCE: Institute of Evolution, University of Haifa, Haifa, Israel
SOURCE: International Journal of Medicinal Mushrooms (2005), 7(1&2), 141-155
CODEN: IMMUFR; ISSN: 1521-9437
PUBLISHER: Begell House, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Breast cancer has become the most common invasive form of female cancer in the last few decades. Statistics show that the rate of newly diagnosed cases of breast cancer is rising every year depending on age, race, heredity, and ethnicity. The National Cancer Institute of US and mainly the Division of Cancer Control and Population Sciences (DCCPS) promote and conduct research that also identifies the economic, social, cultural, psychol., behavioral, and biol. mechanisms that are potential reasons for breast cancer development. Advanced breast cancers do not respond well to therapy, and their gene expression arouses uncontrolled growth. Although estrogen-receptor (ER)-pos. breast cancers respond to hormonal therapy, the treatment of ER-neg. cancers is more complicated because of their ability for developing resistance to drugs. Lack of mol. targets in estrogen receptor-neg. breast cancer is a major therapeutic hurdle. It has been known that NF-κB is significantly important in the processes of inflammation, cell survival, transformation, and oncogenesis, as well as in the etiol. of breast cancer. A theory exists, according to which ER-neg. breast cancer cells depend on NF-κB for aberrant cell proliferation and simultaneously avoid apoptosis, suggesting that NF-κB can be used as a potential mol. target in breast cancer treatment. Studies on new anticancer treatments and other medicinal substances from mushrooms have been significantly expanded in the last few years. This is mainly because they contain bioactive polymers such as **polysaccharides** and **polysaccharide/protein** complexes, secondary metabolites, and enzymes **isolated** from fruit bodies, mycelia, and culture broth. There are data showing the potential activity of medicinal mushrooms in breast cancer treatment. Ganoderma lucidum has shown the most significant inhibitory effect on NF-κB activity in highly invasive breast cancer cells. Other medicinal mushrooms that have also been reported to produce biol. active substances, have been tested in in vivo or in vitro, and have demonstrated breast cancer inhibitory activity are Agaricus bisporus, A. brasiliensis, Trametes versicolor, **Grifola** frondosa, Inonotus obliquus, Lentinus edodes, Leucoagaricus americanus, Pleurotus ostreatus, Sparassis crispa, etc.
CC 1-0 (Pharmacology)
IT Agaricus bisporus
(Agaricus bisporus contain **bioactive** polymer such as **polysaccharides**, **polysaccharide/protein** complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)
IT Agaricus brasiliensis
(Agaricus brasiliensis contain **bioactive** polymer such as

polysaccharides, polysaccharide/protein
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Ganoderma lucidum
(Ganoderma lucidum contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB in highly invasive breast cancer cells)

IT **Grifola frondosa**
(**Grifola** frondosa contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Inonotus obliquus
(Inonotus obliquus contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites, and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Lentinula edodes
(Lentinus edodes contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Leucoagaricus americanus
(Leucoagaricus americanus contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(NF-κB (nuclear factor of κ light chain gene enhancer in B-cells); medicinal mushroom contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Pleurotus ostreatus
(Pleurotus ostreatus contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Sparassis crispa
(Sparassis crispa contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Trametes versicolor
(Trametes versicolor contain **bioactive** polymer such as **polysaccharides, polysaccharide/protein**
complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Antitumor agents

Human
Mammary gland
Mammary gland, neoplasm
(medicinal mushroom contain **bioactive** polymer such as **polysaccharides**, **polysaccharide/protein** complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Enzymes, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicinal mushroom contain **bioactive** polymer such as **polysaccharides**, **polysaccharide/protein** complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

IT Mushroom
(medicinal; medicinal mushroom contain **bioactive** polymer such as **polysaccharides**, **polysaccharide/protein** complex, secondary metabolites and enzymes showed inhibitory effect on nuclear factor κB and showed potential role in breast cancer patient)

REFERENCE COUNT: 102 THERE ARE 102 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 10 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:559923 HCAPLUS
DOCUMENT NUMBER: 143:345512
TITLE: Manufacture of intracellular **polysaccharide** from **Grifola** frondosa
INVENTOR(S): Zhang, Kechang
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp. given
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1546677	A	20041117	CN 2003-10106540	20031203
PRIORITY APPLN. INFO.:			CN 2003-10106540	20031203

AB The title intracellular **polysaccharide** is manufactured by the following steps: (1) fermenting **Grifola** frondosa at 22-29°C for 120-168 h, (2) disrupting the mycelium in fermented liquid, (3) **extracting** with hot water, (4) removing **protein**, decolorizing and desalinizing by dialysis, and (5) **purifying** by column chromatog. The intracellular **polysaccharide** has the functions of HIV resistance, antineoplastic and adjusting immunity system, and can be made into injections or oral drugs.

IC ICM C12P019-04
CC 16-5 (Fermentation and Bioindustrial Chemistry)
ST intracellular **polysaccharide** manuf **Grifola** frondosa fermn
IT Antitumor agents
Bran
Cottonseed

Decolorization
Dialysis
Extraction
Fermentation
Grifola frondosa
Human immunodeficiency virus 1
Liquid chromatography
Separation
Zea mays
(manufacture of intracellular **polysaccharide** from **Grifola** frondosa)

IT **Polysaccharides**, preparation
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(manufacture of intracellular **polysaccharide** from **Grifola** frondosa)

IT 108-95-2, Phenol, uses 7664-93-9, Sulphuric acid, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(manufacture of intracellular **polysaccharide** from **Grifola** frondosa)

IT 50-99-7, Glucose, biological studies 7778-77-0, Monopotassium phosphate 10043-52-4, Calcium chloride, biological studies 10043-83-1, Magnesium phosphate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(manufacture of intracellular **polysaccharide** from **Grifola** frondosa)

IT 64-17-5, **Ethanol**, uses 67-66-3, Chloroform, uses 71-36-3, n-Butanol, uses 76-03-9, Trichloroacetic acid, uses 7647-14-5, Sodium chloride, uses 7722-84-1, Hydrogen peroxide, uses 9013-34-7, DEAE-cellulose
RL: NUU (Other use, unclassified); USES (Uses)
(manufacture of intracellular **polysaccharide** from **Grifola** frondosa)

L173 ANSWER 11 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:147834 HCAPLUS
DOCUMENT NUMBER: 140:233507
TITLE: Induction of lipolysis in vitro and loss of body fat in vivo by zinc-α2-glycoprotein
AUTHOR(S): Russell, Steven T.; Zimmerman, Thomas P.; Domin, Barbara A.; Tisdale, Michael J.
CORPORATE SOURCE: Pharmaceutical Sciences Research Institute, Aston University, Birmingham, B4 7ET, UK
SOURCE: Biochimica et Biophysica Acta, Molecular and Cell Biology of Lipids (2004), 1636(1), 59-68
CODEN: BBMLFG; ISSN: 1388-1981
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Loss of adipose tissue in cancer cachexia has been associated with tumor production of a lipid-mobilizing factor (LMF) which has been shown to be homologous with the plasma protein zinc-α2-glycoprotein (ZAG). The aim of this study was to compare the ability of human ZAG with LMF to stimulate lipolysis in vitro and induce loss of body fat in vivo, and to determine the mechanisms involved. ZAG was **purified** from human plasma using a combination of Q Sepharose and Superdex 75 chromatog., and was shown to stimulate glycerol release from **isolated** murine epididymal adipocytes in a dose-dependent manner. The effect was enhanced by the cAMP phosphodiesterase inhibitor Ro20-1724, and attenuated by

freeze/thawing and the specific β3-adrenoreceptor antagonist SR59230A. In vivo ZAG caused highly significant, time-dependent, decreases in body weight without a reduction in food and water intake. Body composition anal. showed that loss of body weight could be attributed entirely to the loss of body fat. Loss of adipose tissue may have been due to the lipolytic effect of ZAG coupled with an increase in energy expenditure, since there was a dose-dependent increase in expression of uncoupling protein-1 (UCP-1) in brown adipose tissue. These results suggest that ZAG may be effective in the treatment of obesity.

CC 14-1 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1

IT **Glycoproteins**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(ZAG (zinc-α2-glycoprotein); induction of lipolysis in vitro and loss of body fat in vivo by zinc-α2-glycoprotein in relation to cancer cachexia and possible use in treatment of **obesity**)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 12 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:202822 HCAPLUS
DOCUMENT NUMBER: 138:220458
TITLE: Production of fungal extracellular immune stimulating compounds
INVENTOR(S): Kristiansen, Bjoern
PATENT ASSIGNEE(S): Medimush Aps, Norway; Waddell, David
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003020944	A2	20030313	WO 2002-IB3557		20020903
WO 2003020944	A3	20040603			
WO 2003020944	C1	20050217			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
EP 1451336	A2	20040901	EP 2002-762662		20020903
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
US 2005163800	A1	20050728	US 2003-488427		20020903
PRIORITY APPLN. INFO.:			NO 2001-4256	A	20010903
			WO 2002-IB3557	W	20020903

AB A process is described for the production of an immunostimulant by submerged cultivation of in which mycelium from agar plates or a fermentation broth is added to a liquid medium in a shake flask or a bioreactor containing nutrients

such as malt **extract**, yeast **extract**, peptone, and glucose having access to air or to which air is added, and which is kept in constant movement at .apprx.28°. At the proper conditions, there will be an increase in the production of extracellular lentinan, which is shown to be a better immunostimulant than intracellular lentinan. The extracellular product is precipitated from the growth medium by means of methods for the precipitation of microbial polysaccharide.

IC ICM C12P019-00
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 15
IT Fermentation
Fungi
Grifola frondosa
Immunostimulants
Lentinula edodes
Schizophyllum commune
Trametes versicolor
(production of fungal extracellular immune stimulating compds.)
IT **Glycoproteins**
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(production of fungal extracellular immune stimulating compds.)

L173 ANSWER 13 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:479369 HCAPLUS
DOCUMENT NUMBER: 141:87933
TITLE: Fermentation technology of **Grifola** frondosa and method for producing its **polysaccharide** peptide
INVENTOR(S): Qian, Xiuping; Lan, Degang; Wang, Qiang
PATENT ASSIGNEE(S): Weijing Zhonghua Shanghai Biological and Medical Science and Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1398979	A	20030226	CN 2002-136517	20020816

PRIORITY APPLN. INFO.: CN 2002-136517 20020816

AB The method comprises culturing **Grifola** frondosa strain GF103 on PDA or malt juice solid medium at 25-28° for 7-10 d, mutating under UV radiation for 5-15 s, screening on the above solid medium to obtain high-yield strain GF103-21; culturing on solid medium 70-78, sucrose or glucose 1, bran 20-28, gypsum or CaCO3 1, and water 60% at 22-26° for 20-30 d then at 18-24° for 20-25 d; culturing in seed medium at 24-28° for 2-3 d, fermenting for 4-7 d; press filtering to obtain mycelium, **extracting** with water at room temperature overnight and then at 90-100° for 2-5 h, concentrating, precipitating with 95% **ethanol** at 0-4° for 8-10 h, and drying.

IC ICM C12P021-02
ICS C12N001-14
CC 16-7 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 1, 17
ST **polysaccharide** peptide **Grifola** mycelium biomass
IT Oryza sativa

(bran; **polysaccharide** manufacture with **Grifola** frondosa)
IT Biomass
Culture media
Drugs
Fermentation
Grifola frondosa
Health food
Health products
Mycelium
Sawdust
Soybean meal
Wheat bran
(**polysaccharide** manufacture with **Grifola** frondosa)
IT **Glycoproteins**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(**polysaccharide** manufacture with **Grifola** frondosa)
IT Soybean oil
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**polysaccharide** manufacture with **Grifola** frondosa)
IT **Polysaccharides**, preparation
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(**protein** complex; **polysaccharide** manufacture with **Grifola** frondosa)
IT Bran
Straw
(rice; **polysaccharide** manufacture with **Grifola** frondosa)
IT Zea mays
(slurry; **polysaccharide** manufacture with **Grifola** frondosa)
IT Oryza sativa
(straw; **polysaccharide** manufacture with **Grifola** frondosa)
IT 50-99-7, D-Glucose, biological studies 57-50-1, Sucrose, biological studies 471-34-1, Calcium carbonate, biological studies 7487-88-9, Magnesium sulfate, biological studies 7778-77-0, Potassium dihydrogen phosphate 13397-24-5, Gypsum, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**polysaccharide** manufacture with **Grifola** frondosa)

L173 ANSWER 14 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:479314 HCAPLUS
DOCUMENT NUMBER: 141:301386
TITLE: Method for **extracting** and separating **polysaccharide** peptide of fruiting body of **Grifola** frondosa
INVENTOR(S): Mao, Rengang; Lan, Degang; Wang, Qiang
PATENT ASSIGNEE(S): Weijing Zhonghua Shanghai Biological and Medical Science and Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

CN 1398898	A	20030226	CN 2002-136693	20020828
PRIORITY APPLN. INFO.:			CN 2002-136693	20020828

AB The method comprises grinding the fruiting body of **Grifola** frondosa, **extracting** with water at 50-120°C 2-5 times each for 1-20 h, concentrating, precipitating with 1-4 fold 95% **ethanol** at 4°C overnight, vacuum drying precipitate to obtain crude soluble **polysaccharide** peptide (**polysaccharide** content of 5-90% and polypeptide content of 5-80%); similarly **extracting** the soluble **polysaccharide** peptide-**extracted** residue with diluted acid, precipitating with organic solvent (such as alc., acetone, etc.) to obtain acid-soluble **polysaccharide** peptide; and similarly **extracting** with acid-soluble **polysaccharide** peptide-**extracted** residue with diluted base, and precipitating with organic solvent to obtain base-soluble **polysaccharide** peptide. The soluble **polysaccharide** peptide is further separated by dissolving in water, precipitating with 1 fold 95% **ethanol**, dissolving precipitate in water, precipitating at pH ≥8 (adjusted with 1-20% CAT-OH or CAT-Br + NaOH solution), concentrating supernatant, **deproteinizing**, precipitating with 2-4-fold 95% alc. to obtain **polysaccharide** peptide FB-1; dissolving the FB-1 in 1-50% acetic acid, concentrating the supernatant, **deproteinizing**, precipitating with 2-4-fold 95% **ethanol** to obtain FB-2; similarly separating at pH 5-8 to obtain FB-3; and similarly separating at pH 7 to obtain FB-4. The acid-soluble or base-soluble **polysaccharide** peptide may be further separated by above method.

IC ICM C07K014-37
ICS C08B037-00; A61P035-00; A61P009-12; A61P003-10; A61P003-06

CC 63-4 (Pharmaceuticals)

ST **polysaccharide** peptide **Grifola** frondosa fruiting body **extn**

IT Peptides, biological studies
Polysaccharides, biological studies
RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**Grifola** frondosa; method for **extracting** and separating **polysaccharide** peptide of fruiting body of **Grifola** frondosa)

IT **Extraction**
Grifola frondosa
(method for **extracting** and separating **polysaccharide** peptide of fruiting body of **Grifola** frondosa)

L173 ANSWER 15 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	2003:212627 HCAPLUS
DOCUMENT NUMBER:	139:5686
TITLE:	Biological activities of the polysaccharides produced from submerged culture of the edible Basidiomycete **Grifola** frondosa
AUTHOR(S):	Lee, Bum Chun; Bae, Jun Tae; Pyo, Hyeong Bae; Choe, Tae Boo; Kim, Sang Woo; Hwang, Hye Jin; Yun, Jong Won
CORPORATE SOURCE:	R&D Center, Hanbul Cosmetics Co., Chungbuk, 369-830, S. Korea
SOURCE:	Enzyme and Microbial Technology (2003), 32(5), 574-581 CODEN: EMTED2; ISSN: 0141-0229
PUBLISHER:	Elsevier Science Inc.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Five groups of polysaccharides were prepared from mycelium **extract** and top and bottom fraction of filtrate ppts. by submerged culture of

Grifola frondosa at two different media (glucose and PMP medium) and their individual biol. activities were studied. These polysaccharides had diverse mol. mass (470-1650 kDa) and different biol. activities at the concns. of 0.01-0.2% (w/v). Most of polysaccharides had antioxidant and free radical scavenging activities after UV irradiation, where G-2 (bottom fraction of filtrate ppts. from glucose medium, MW 770 kDa) and G-3 polysaccharide (mycelium **extract** from glucose medium, MW 500 kDa) showed strong activity. The P-1 (from top fraction of filtrate ppts. from PMP medium, MW 1650 kDa) and P-3 polysaccharide (from mycelium **ext** . from PMP medium, MW 470 kDa) increased the proliferation of fibroblasts by approx. 23-25%. Other two groups of polysaccharides produced from glucose medium (G-2 and G-3 polysaccharides) showed also notable proliferation activity for fibroblasts. Treatment of fibroblasts with P-3 polysaccharide significantly increased the biosynthesis of collagen by approx. 80%. G-2 and G-3 polysaccharides showed also marked activity. However, G-1 and P-1 polysaccharides had only negligible activity in collagen biosynthesis.

CC 16-2 (Fermentation and Bioindustrial Chemistry)

ST **Grifola** polysaccharide fermn **bioactivity**

IT Fermentation
(batch; biol. activities of polysaccharides produced from submerged culture of edible Basidiomycete **Grifola** frondosa)

IT Antioxidants
Culture media
Grifola frondosa
(biol. activities of polysaccharides produced from submerged culture of edible Basidiomycete **Grifola** frondosa)

IT Polysaccharides, biological studies
RL: BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(biol. activities of polysaccharides produced from submerged culture of edible Basidiomycete **Grifola** frondosa)

IT Collagens, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(biosynthesis, stimulation of; biol. activities of polysaccharides produced from submerged culture of edible Basidiomycete **Grifola** frondosa)

IT Cell proliferation
(stimulation of; biol. activities of polysaccharides produced from submerged culture of edible Basidiomycete **Grifola** frondosa)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 16 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:121966 HCAPLUS

DOCUMENT NUMBER: 141:195013

TITLE: Quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by using limulus G test

AUTHOR(S): Yang, Xiaotong; Wan, Jennifer Manfan; Mi, Ke; Feng, Huiqin; Chan, Daniel K. O.; Yang, Qingyao

CORPORATE SOURCE: Faculty of Science, The University of Hong Kong, Hong Kong, Peop. Rep. China

SOURCE: Junwu Xitong (2003), 22(2), 296-302
CODEN: JUXIFB; ISSN: 1007-3515

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: English

AB (1,3)-β-Glucan is a core structure in mushroom polysaccharides, which

claim to posses anticancerous and immunomodulatory properties. The ability to identify (1,3)-β-glucan in mushroom polysaccharides not only provides useful information on the structural composition of the mushroom polysaccharides, but facilitates us to identify the potential anticancerous and immunomodulatory active compds. Using limulus factor G test, (1,3)-β-glucan was detected in 27 polysaccharides **extd** . from 19 edible or medicinal mushrooms species. The result shows that (1,3)-β-glucan exists in all mushroom polysaccharide **exts.** but its content variation extremely depends on the mushroom species or the part of mushroom and the degree of **purification** Our data show the mean of (1,3)-β-glucan in these mushroom polysaccharides is 34.8%. Nine mushroom polysaccharide **exts.** from Lentinus edodes, Schizophyllum commune, Coriolus versicolor, Volvariella volvacea, Coprinus comatus, **Grifola** frondosa, Lyophyllum shimeji have superior (1,3)-β-glucan contents to the others. Our study demonstrates that limulus Factor G test is a quick and convenient method for detecting (1,3)-β-glucan content in crude mushroom polysaccharide **exts** .

CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 64

IT Agaricus blazei
Agrocybe chaxingu
Auricularia auricula-judae
Coprinus comatus
Flammulina velutipes
Ganoderma lucidum
Grifola frondosa
Hericium erinaceus
Lactarius deliciosus
Lentinula edodes
Lyophyllum shimeji
Mushroom
Pleurotus citrinopileatus
Pleurotus cornucopiae
Pleurotus eryngii
Polyporus umbellatus
Schizophyllum commune
Trametes versicolor
Tremella fuciformis
Volvariella volvacea
(**exts.**; **isolation** and quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by limulus G test)

IT Antitumor agents
Immunomodulators
(**isolation** and quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by limulus G test)

IT Polysaccharides, biological studies
RL: NPO (Natural product occurrence); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(**isolation** and quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by limulus G test)

IT **Glycoproteins**
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**isolation** and quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by limulus G test)

IT 9051-97-2, (1,3)-β-Glucan
RL: ANT (Analyte); NPO (Natural product occurrence); THU (Therapeutic

use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**isolation** and quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by limulus G test)

IT 9050-67-3, Schizophyllan 37339-90-5, LEntinan
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**isolation** and quantification of (1,3)-β-glucan in edible and medicinal mushroom polysaccharides by limulus G test)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 17 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:869098 HCAPLUS
DOCUMENT NUMBER: 137:351606
TITLE: Preparation of lactic acid fermented mushroom solutions exhibiting anticholesterolemic and antidiabetes effects
INVENTOR(S): Kim, Beom Kyu; Shin, Gab Gyun; Cha, Jae Young; Jeon, Beong Sam; Bae, Dong Won
PATENT ASSIGNEE(S): Biohub Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090559	A1	20021114	WO 2001-KR2090	20011204
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2002085159	A	20021116	KR 2001-24513	20010507
KR 2003020772	A	20030310	KR 2001-54236	20010904
KR 2003042307	A	20030528	KR 2001-73033	20011122
CA 2445713	AA	20021114	CA 2001-2445713	20011204
EP 1385970	A1	20040204	EP 2001-274211	20011204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1511193	A	20040707	CN 2001-823234	20011204
JP 2002335907	A2	20021126	JP 2001-371412	20011205
JP 3644500	B2	20050427		
US 2002192334	A1	20021219	US 2001-1970	20011205
US 6841180	B2	20050111		

PRIORITY APPLN. INFO.:		
KR 2001-24513	A	20010507
KR 2001-54236	A	20010904
KR 2001-73033	A	20011122
WO 2001-KR2090	W	20011204

AB A process is provided for the preparation of mushroom mycelia, fruiting bodies, powders and **exts.** fermented by lactic acid bacteria to provide a fermented product which exhibits anticholesteremic and antidiabetics properties. Thus, fruiting bodies and mycelia of Agaricus blazei were

ground to produce a dry powder which was mixed at a 5% (weight/weight) rate with
10% (weight/weight) defatted milk, 2% (weight/weight) sucrose and the balance water.
This mixture was heated to 100 °C for 20 min, cooled to 37 °C
and inoculated with a culture of Lactobacillus bulgaricus at a 3% level.
The mixture was fermented for 6 h aat which time the fermented mixture was
cooled to 4 °C and aged for 12 h. These aged fermented samples
were then homogenized to produce a lactic acid fermented solution of Agaricus
blazei. The biol. effects of the solns. prepared in this manner were tested
by inclusion in the diets of rats to test for cholesterol lowering effects
and of diabetes patients to test for blood glucose lowering effects.

IC ICM C12P007-56
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 1, 63
ST lactic acid fermented mushroom **antidiabetic** anticholesterol
IT High-density **lipoproteins**
RL: ADV (Adverse effect, including toxicity); PRP (Properties); BIOL (Biological study)
(cholesterol; preparation of lactic acid fermented mushroom solns. exhibiting anticholesterolemic and antidiabetes effects)
IT Agaricus bisporus
Agaricus blazei
Cordyceps
Flammulina velutipes
Ganoderma applanatum
Ganoderma lucidum
Grifola frondosa
Lentinula edodes
Pleurotus ostreatus
(**extract** of; preparation of lactic acid fermented mushroom solns. exhibiting anticholesterolemic and antidiabetes effects)
IT Viscosity
pH
(of fermented **exts.**; preparation of lactic acid fermented mushroom solns. exhibiting anticholesterolemic and antidiabetes effects)
IT Anticholesteremic agents
Antidiabetic agents
Culture media
Extraction
Fermentation
Homogenization
Human
Lactic acid bacteria
Lactobacillus delbrueckii bulgaricus
Mushroom
Temperature effects, biological
(preparation of lactic acid fermented mushroom solns. exhibiting anticholesterolemic and antidiabetes effects)
IT **Oligosaccharides**, processes
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)
(preparation of lactic acid fermented mushroom solns. exhibiting anticholesterolemic and antidiabetes effects)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 18 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:409247 HCAPLUS
DOCUMENT NUMBER: 137:734
TITLE: Glycosylated leptin transport factor for controlling

weight and obesity
INVENTOR(S): Qian, Hao; Gingerich, Ronald
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2002065217	A1	20020530	US 2001-922450		20010804
US 2005049184	A1	20050303	US 2004-938049		20040910
PRIORITY APPLN. INFO.:			US 2000-222813P	P	20000804
			US 2001-922450	B1	20010804

AB Methods and compds. for the treatment of obesity and weight loss induction by use of a functional, glycosylated leptin transport factor (LTF) polypeptide, referred to as fn/glyLTF, are disclosed. An unstable defective version of the LTF protein, referred to herein as def/LTF, is present in freshly-drawn blood from obese animals or people; it is degraded rapidly in circulating blood. In people with normal body weight, fn/glyLTF stabilizes and protects leptin, a hormone with powerful effects on fat metabolism and body mass. LTF apparently is the same protein previously recognized as a soluble truncated fragment of the obesity receptor (Ob-R) protein, referred to in the prior art as Ob-Re, or sOb-R. In humans with normal body weight, fn/glyLYF has a weight of about 145 kD, compared to a polypeptide-only weight of about 93 kD. defLTF has a substantially lower **mol. weight**, and tests using deglycosylating enzymes indicate that it is not glycosylated to the same level as fn/glyLTF. Treatment methods include: (1) elevating concns. of fn/glyLTF in circulating blood, by means such as i.v. injection or sustained-release implants, or by gene therapy; (2) suppressing enzymic deglycosylation in circulating blood, such as by extracorporeal removal of deglycosylating enzymes; and, (3) providing "surrogate" forms of fn/glyLTF. Diagnostic kits are also disclosed, for measuring both fn/glyLTF and def/LTF in animals and people suffering from obesity.

IC ICM A61K038-17
INCL 514008000
CC 1-10 (Pharmacology)
Section cross-reference(s): 2, 3, 15, 63
IT **Glycoproteins**
RL: DGN (Diagnostic use); PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(glycosylated leptin transport factor (fn/glyLTF); glycosylated leptin transport factor for controlling weight and **obesity**)

L173 ANSWER 19 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:969970 HCAPLUS
DOCUMENT NUMBER: 142:246034
TITLE: Production of **glycoprotein** derived from **Grifola** frondosa
INVENTOR(S): Jung, Kyung Soo; Lee, Im Seon
PATENT ASSIGNEE(S): S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2002081825	A	20021030	KR 2001-21226	20010419
PRIORITY APPLN. INFO.:			KR 2001-21226	20010419

AB A process of preparing glycoprotein by **extracting Grifola** frondosa belonging to Basidiomycetes. Whereby, the glycoprotein has excellent anticancer activity and can be widely used for the treatment of cancer. **Grifola** frondosa is soaked in water and **extracted** at 90 to 100° for 1 to 2hr, and the **extract** is mixed with alc. in a **ratio** of 0.5:1 to 1.5:1(volume/volume), wherein the alc. is 90 to 100%(volume/volume) methanol, **ethanol**, propanol, butanol or pentanol. For example, 100g dried fruit body of **Grifola** frondosa is ground with 300mL distilled water, **extracted** at 95° for 1hr and concentrated under reduced pressure. The **extract** is added with 95%(volume/volume) **ethanol**, left at 4° over night and centrifuged to produce a precipitate, which is dissolved in 20mL distilled water, centrifuged, dialyzed for 3 days and then freeze-dried.

IC ICM A61K035-78

CC 63-4 (Pharmaceuticals)

ST **glycoprotein Grifola extn**

IT **Grifola frondosa**
Solvent **extraction**
(production of **glycoprotein** derived from **Grifola** frondosa)

IT **Glycoproteins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(production of **glycoprotein** derived from **Grifola** frondosa)

IT 64-17-5, **Ethanol**, processes 67-56-1, Methanol, processes 71-23-8, Propanol, processes 71-36-3, Butanol, processes 71-41-0, Pentanol, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(production of **glycoprotein** derived from **Grifola** frondosa)

L173 ANSWER 20 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:149786 HCAPLUS

DOCUMENT NUMBER: 136:384663

TITLE: Anti-grifolan antibody reacts with the cell wall β-glucan and the extracellular mannoprotein-β-glucan complex of C. albicans

AUTHOR(S): Uchiyama, Michiharu; Ohno, Naohito; Miura, Noriko N.; Adachi, Yoshiyuki; Yadomae, Toshiro

CORPORATE SOURCE: School of Pharmacy, Laboratory for Immunopharmacology of Microbial Products, Tokyo University of Pharmacy and Life Science, Hachioji, Tokyo, 192-0392, Japan

SOURCE: Carbohydrate Polymers (2002), 48(4), 333-340
CODEN: CAPOD8; ISSN: 0144-8617

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have recently prepared a rabbit antibody (Ab) against a fungal branched β-(1 3)-d-glucan, grifolan (GRN) obtained from **Grifola** frondosa. In this study, we examined the reactivity of anti-GRN Ab against a pathogenic fungus, Candida albicans. Anti-GRN Ab was strongly reacted with acetone dried, autoclaved, NaOH treated, as well as NaClO treated C.

albicans, assessed by FACS. The binding was inhibited by GRN, a solubilized Candida spp. β(1 3)-D-glucan (CSBG), and a extracellular mannoprotein-β-glucan complex (CAWS). By ELISA anal., binding affinity of anti-GRN Ab to GRN and CSBG was different. These facts strongly suggested that anti-GRN Ab reacted with the cell wall β-glucan in several ways. The Ab would be useful for the immunochem. diagnostic test of the deep-seated mycosis.

CC 15-3 (Immunochemistry)
Section cross-reference(s): 10, 14

IT **Glycoproteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mannose-containing, β-glucan complexes; anti-grifolan antibody reacts with the cell wall β-glucan and the extracellular mannoprotein-β-glucan complex of C. albicans)

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 21 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:609086 HCAPLUS
DOCUMENT NUMBER: 138:119653
TITLE: **Isolation, purification** and characterization of **polysaccharides** from **Grifola** frondosa
AUTHOR(S): Li, Xiaoding; Wu, Moucheng; Zeng, Xiaobo; Rong, Jianhua; Wang, Zhongmin
CORPORATE SOURCE: Department of Food Science + Technology, Huazhong Agricultural University, Wuhan, 430070, Peop. Rep. China
SOURCE: Huazhong Nongye Daxue Xuebao (2002), 21(2), 186-188
CODEN: HNDXEK; ISSN: 1000-2421
PUBLISHER: Huazhong Nongye Daxue
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The **polysaccharide** fraction (PGF) from **Grifola** frondosa was prepared with hot water **extraction, ethanol** precipitation, dialysis against water and lyophilization. Four kinds **polysaccharides**, PGF-1, PGF-2, PGF-3 and PGF-4, were **purified** from PGF by **deprotein** with Sevag method and DEAE-Sephadex A-25 chromatog. PGF-1 - PGF-4 showed to be homogeneous by paper chromatog., Sephadex G-200 chromatog. and polyacrylamide gel electrophoresis anal. PGF-1 was confirmed to be dextran by GC and TLC and its **mol. weight** was 110,000 by GPC. IR spectrum of PGF-1 revealed that it contained β-glucosidic bonds.

CC 10-1 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 33

ST **Grifola polysaccharides purifn isolation**

IT **Grifola frondosa**
(**isolation, purification** and characterization of **polysaccharides** from **Grifola** frondosa)

IT **Polysaccharides**, properties
RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
(**isolation, purification** and characterization of **polysaccharides** from **Grifola** frondosa)

IT 9004-54-0P, Dextran, properties
RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
(**isolation, purification** and characterization of **polysaccharides** from **Grifola** frondosa)

L173 ANSWER 22 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:932633 HCAPLUS
DOCUMENT NUMBER: 141:12057
TITLE: Preliminary study on **isolation** and **purification** of medicinal active component grifolan from **Grifola** frondosa
AUTHOR(S): Wang, Weiguo; Zhao, Yongliang; Bao, Dongwu
CORPORATE SOURCE: Biochemical Engineering Department, Nanyang Institute of Science and Technology, Nanyang, Henan Province, 473004, Peop. Rep. China
SOURCE: Zhengzhou Gongcheng Xueyuan Xuebao (2002), 23(4), 60-63
CODEN: ZZGHAR; ISSN: 1671-1629
PUBLISHER: Zhengzhou Gongcheng Xueyuan Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The influential factors of **isolation** and **purification** of grifolan from **Grifola** frondosus fruits were studied by orthogonal test. The results showed that the optimal conditions of separation and **purification** of grifolan were adding 30 times of water to the raw plant, boiling twice at 980C in pH 6.5-7.0 solution for 3 h. The two liqs. were collected together and then concentrated, precipitated by 70% **ethanol**, so 12%-15% of raw **polysaccharide** could be obtained. In order to **purify** the **exts.** by removing **proteins**, raw **polysaccharide exts.** were treated with trichloromethane and 2-butanol for 60 min.
CC 63-4 (Pharmaceuticals)
ST grifolan **isolation purifn Grifola** trichloromethane isobutanol **ethanol**
IT Antitumor agents
Grifola frondosa
(**isolation** and **purification** of grifolan from **Grifola**)
IT 64-17-5, **Ethanol**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**extraction** medium; **isolation** and **purification** of grifolan from **Grifola**)
IT 104074-36-4P, Grifolan
RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**isolation** and **purification** of grifolan from **Grifola**)
IT 67-66-3, Trichloromethane, uses 78-92-2, 2-Butanol
RL: TEM (Technical or engineered material use); USES (Uses)
(**purification** medium; **isolation** and **purification** of grifolan from **Grifola**)

L173 ANSWER 23 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:217695 HCAPLUS
DOCUMENT NUMBER: 134:251706
TITLE: Zinc supplements, zinc-(glyco)protein complexes, and their manufacture
INVENTOR(S): Omura, Teijiro; Suganuma, Otokichi; Maeda, Hiroaki
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001078715	A2	20010327	JP 1999-262556	19990916

PRIORITY APPLN. INFO.: JP 1999-262556 19990916

AB The complexes are manufactured by culture of Lentinus, **Grifola**, or Agaricus in media containing water-soluble Zn, and **isolating** (glyco)proteins containing ≥0.5 g/100 g Zn from the cells or the culture media. L. edodes was cultured in the presence of Zn(NO3)2 to produce 1.1 g/L Zn-protein and 2.3 g/L Zn-glycoprotein, which in vitro promoted production of interleukin-I.

IC ICM A23L001-28
ICS A23J003-20; A23L001-304; C12P021-02; C12R001-645

CC 18-1 (Animal Nutrition)

ST zinc supplement protein **glycoprotein** complex; Lentinus zinc protein **glycoprotein** complex supplement; **Grifola** zinc protein **glycoprotein** complex supplement; Agaricus zinc protein **glycoprotein** complex supplement

IT Agaricus
Agaricus blazei
Grifola
Grifola frondosa
Lentinula edodes
Lentinus
(manufacture of Zn-(glyco)protein complexes with)

IT **Glycoproteins**, specific or class
Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(zinc-containing; manufacture of Zn-(glyco)protein complexes as Zn supplements)

L173 ANSWER 24 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:217694 HCAPLUS
DOCUMENT NUMBER: 134:251705
TITLE: Magnesium supplements, magnesium-(glyco)protein complexes, and their manufacture
INVENTOR(S): Omura, Teijiro; Suganuma, Otokichi; Maeda, Hiroaki
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001078714	A2	20010327	JP 1999-262552	19990916

PRIORITY APPLN. INFO.: JP 1999-262552 19990916

AB The complexes are manufactured by culture of Lentinus, **Grifola**, or Agaricus in media containing water-soluble Mg, and **isolating** (glyco)proteins containing ≥0.5 g/100 g Mg from the cells or the culture media. L. edodes was cultured in the presence of MgO to produce 1.2 g/L Mg-protein and 2.5 g/L Mg-glycoprotein, which decreased plasma total cholesterol of rats.

IC ICM A23L001-28
ICS A23J003-20; A23L001-304; C12P021-02; C12R001-645

CC 18-1 (Animal Nutrition)

ST magnesium supplement protein **glycoprotein** complex; Lentinus magnesium protein **glycoprotein** complex supplement; **Grifola** magnesium protein **glycoprotein** complex supplement; Agaricus magnesium protein **glycoprotein** complex supplement

IT **Glycoproteins**, specific or class
Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(magnesium-containing; manufacture of Mg-(glyco)protein complexes as Mg supplements)

IT Agaricus
Agaricus blazei
Grifola
Grifola frondosa
Lentinula edodes
Lentinus
(manufacture of Mg-(glyco)protein complexes with)

L173 ANSWER 25 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:214806 HCAPLUS
DOCUMENT NUMBER: 134:251704
TITLE: Iron supplements, iron-(glyco)protein complexes, and their manufacture
INVENTOR(S): Omura, Teijiro; Suganuma, Otokichi; Maeda, Hiroaki
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001078713	A2	20010327	JP 1999-262546	19990916
PRIORITY APPLN. INFO.:			JP 1999-262546	19990916

AB The complexes are manufactured by culture of Lentinus, **Grifola**, or Agaricus in media containing water-soluble Fe, and **isolating** (glyco)proteins containing ≥0.5 g/100 g Fe from the cells or the culture media. L. edodes was cultured to produce 15.2 g/L Fe-protein and 11.7 g/L Fe-glycoprotein, which increased erythrocyte number and hematocrit in patients with anemia.

IC ICM A23L001-28
ICS A23J003-20; A23L001-304; C12P021-02; C12R001-645

CC 18-1 (Animal Nutrition)

ST iron supplement protein **glycoprotein** complex; Lentinus iron protein **glycoprotein** complex supplement; **Grifola** iron protein **glycoprotein** complex supplement; Agaricus iron protein **glycoprotein** complex supplement

IT **Glycoproteins**, specific or class
Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(iron-containing; manufacture of Fe-(glyco)protein complexes as Fe supplements)

IT Agaricus
Agaricus blazei
Grifola
Grifola frondosa
Lentinula edodes
Lentinus
(manufacture of Fe-(glyco)protein complexes with)

L173 ANSWER 26 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:174064 HCAPLUS
DOCUMENT NUMBER: 134:227342
TITLE: Method for **extracting bioactive** components from mushrooms and/or yeasts
INVENTOR(S): Ikegawa, Tetsuro; Ikegawa, Akiko; Shimada, Fumitake
PATENT ASSIGNEE(S): Seimei Kagaku Kenkyusho Jugen, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001064195	A2	20010313	JP 1999-281868	19990827
PRIORITY APPLN. INFO.:			JP 1999-281868	19990827

AB The invention relates to a method for **extracting** biol. active component having antitumor activity, etc., from mushroom, e.g. shiitake, Flammulina, Pleurotus ostreatus, **Grifola** frondosa, Pholiota nameko, Polyporaceae, Ganoderma, Hypsizigus marmoreus, and Fomes yucatensis, and/or yeast, wherein the **extraction** is carried out with water or lower alc. after a glycolytic enzyme treatment of the mushroom and/or yeast. Hypsizigus marmoreus was treated α-amylase and then **extracted** with water. The **extract** showed antitumor activity in sarcoma-180 cell-transplanted mice. Tablets were prepared from the Hypsizigus marmoreus **extract** and film coated with soybean peptide.
IC ICM A61K035-84
ICS A61K009-20; A61K031-00; A61K035-72
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 1
ST mushroom yeast **bioactive** component **extn** amylase
IT Shellac
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(film-coated tablets containing **exts.** of mushrooms and/or yeasts)
IT Antitumor agents
Flammulina
Fomes yucatensis
Ganoderma
Grifola frondosa
Hypsizygus marmoreus
Lentinula edodes
Mushroom
Pholiota nameko
Pleurotus ostreatus
Polyporaceae
Saccharomyces cerevisiae
Yeast
(method for **extracting bioactive** components from mushrooms and/or yeasts)
IT Natural products, pharmaceutical

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for **extracting bioactive** components from mushrooms and/or yeasts)

IT Enzymes, biological studies
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polysaccharide-degrading; method for **extracting bioactive** components from mushrooms and/or yeasts)

IT Soybean (Glycine max)
(products, peptides; film-coated tablets containing **exts.** of mushrooms and/or yeasts)

IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soybean; film-coated tablets containing **exts.** of mushrooms and/or yeasts)

IT Drug delivery systems
(tablets, coated; method for **extracting bioactive** components from mushrooms and/or yeasts)

IT 9000-90-2, α-Amylase
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for **extracting bioactive** components from mushrooms and/or yeasts)

L173 ANSWER 27 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:539295 HCAPLUS
DOCUMENT NUMBER: 136:116526
TITLE: The relationship of oxidative DNA damage marker 8-hydroxydeoxyguanosine and glycoxidative damage marker pentosidine
AUTHOR(S): Kouda, Katsuyasu; Nakamura, Harunobu; Fan, Wen Ying; Horiuchi, Kentaro; Takeuchi, Hiroichi
CORPORATE SOURCE: Department of Public Health, Hamamatsu University School of Medicine, Hamamatsu, Japan
SOURCE: Clinical Biochemistry (2001), 34(3), 247-250
CODEN: CLBIAS; ISSN: 0009-9120
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 8-Hydroxydeoxyguanosine (8-OHdG) is a biomarker of oxidative DNA damage. Pentosidine is a biomarker of glycoxidn. reaction. In this study, we investigated relationship among 8-OHdG, pentosidine and age. We determined the urinary concentration of 8-OHdG and pentosidine in adults with mild hypercholesterolemia or/and mild hypertension (hypercholesterolemia group, n = 31; hypertension group, n = 25; hypercholesterolemia and hypertension group, n = 7). The strength of the relationship between 8-OHdG and age was the same as that between pentosidine and age (the correlation coefficient between 8-OHdG and age was 0.33, pentosidine and age was 0.37). In addition, there was a pos. and significant correlation between 8-OHdG and pentosidine. On the other hand, mean values of 8-OHdG and pentosidine showed no significant difference among the three groups. The results of the present study indicate that both 8-OHdG and pentosidine levels increase similarly in degenerative pathol. conditions.

CC 14-5 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 9, 13

IT **Glycoproteins**
RL: BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(AGE (advanced glycosylation end product); relationship of urinary oxidative DNA damage marker 8-hydroxydeoxyguanosine and urinary glycoxidative damage marker pentosidine in adults with mild hypercholesterolemia or/and mild **hypertension**)
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 28 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:105354 HCAPLUS
DOCUMENT NUMBER: 134:285520
TITLE: **Isolation** of antidiabetic components from white-skinned sweet potato (Ipomoea batatas L.)
AUTHOR(S): Kusano, Shuichi; Abe, Hiroyuki; Tamura, Hirohide
CORPORATE SOURCE: Research Institute, Fuji Sangyo Co., Ltd., Kagawa, 763-0071, Japan
SOURCE: Bioscience, Biotechnology, and Biochemistry (2001), 65(1), 109-114
CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have already reported that white-skinned sweet potato (Ipomoea batatas L.) (WSSP) shows antidiabetic activity in streptozotocin (STZ) induced diabetic rats and genetically diabetic models (yellow KK, db/db mice and Zucker fatty rats). In this study, **isolation** and **purifn**. of the antidiabetic component of WSSP were attempted. Almost all antidiabetic activity was found in the cortex of WSSP. The fractionation of the antidiabetic component in the WSSP cortex was done by the following methods: dialysis of the water **extract**, 85% ethanol precipitation, 15% trichloroacetic acid (TCA) treatment, butyl-, phenyl-hydrophobic column chromatog., and ultrafiltration treatment. The antidiabetic component was not eliminated during dialysis and was soluble in 85% ethanol and 15% TCA, but it passed through a filter that allows the passage of substances of a **mol. weight** of 30,000. The uniformity of this **isolated** active component was analyzed using HPLC. A single peak was seen with three different columns (C8 reverse-phase column, anion exchange QA column, and gel filtration column (GFC)), indicating that the component is a uniform substance. The **mol. weight** of this antidiabetic component was estimated to be 22,000 by GFC anal. This active component was presumed to be an acidic glycoprotein because it contained protein and sugar and was adsorbed onto the QA column at pH 7.0.
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 1
ST antidiabetic Ipomoea **isolation**
IT **Glycoproteins**, specific or class
RL: PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(acid; **antidiabetic** from white-skinned sweet potato)
IT Antidiabetic agents
Sweet potato
(**isolation** of an antidiabetic from white-skinned sweet potato)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L173 ANSWER 29 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:493312 HCAPLUS
DOCUMENT NUMBER: 133:101738
TITLE: Tannins in method of **isolating** mucilaginous

polysaccharides and uses for the **polysaccharides** thus obtained

INVENTOR(S): Vittori, Natale
PATENT ASSIGNEE(S): Vito-Mannan Polysaccharide L.L.C., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000041541	A2	20000720	WO 2000-US759		20000111
WO 2000041541	A3	20011115			
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BF, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2328092	AA	20000720	CA 2000-2328092		20000111
EP 1144456	A2	20011017	EP 2000-904309		20000111
EP 1144456	A3	20020911			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
US 6482942	B1	20021119	US 2000-481111		20000111
PRIORITY APPLN. INFO.:			US 1999-115619P	P	19990112
			WO 2000-US759	W	20000111

AB The present invention provides a method of **isolating** mucilaginous **polysaccharides** from plants, cereals, cell cultures, or fungi such as mushrooms known to have mucilaginous or **protein**-bound **polysaccharides** with desirable biol. properties. The mucilaginous **polysaccharides** present in aqueous solution or tissue **exts.** are treated with tannins to form a complex which is then separated from the solution The complex is then treated one or more times with either solvents or other substances in solution to remove the bounded tannins from the complex thereby and releasing the **isolated polysaccharide.** The **polysaccharides** prepared according to the present method retain properties that are substantially similar to those of the native **polysaccharide** as it is found in the resp. plant or cell. The **polysaccharides** thus prepared are used in a variety of products, e.g., in cosmetics, pharmaceuticals, and food products. This process is particularly suitable for **isolating** acetylated mannose polymers from aloe plants and beta glucans.

IC C12P019-00
CC 9-9 (Biochemical Methods)
Section cross-reference(s): 10, 11, 17, 62, 63
ST mucilaginous **polysaccharide isolation** tannin; aloe **polysaccharide isolation** tannin
IT Sarcoma
(Kaposi's, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Food
(and food supplements; tannins in method of **isolating**

mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Oat
Oat
(bran; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Fatigue, biological
(chronic fatigue syndrome, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Rheumatoid arthritis
(chronic or acute, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Tannins
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)
(complexes, with **polysaccharides**; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT **Polysaccharides**, processes
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)
(complexes, with tannins; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Sorghum
(condensed tannins of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Hair preparations
(conditioners; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Cosmetics
(creams, moisturizers; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Cryptosporidium
(cryptosporidiosis from, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Skin, disease
(decubitus ulcer, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Mental disorder
(depression, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Medical goods
(dressings; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Chestnut (Castanea)
Divi-divi (Caesalpinia coriaria)
Myrobalan
(ellagitannin of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus

obtained)
IT Tannins
RL: NUU (Other use, unclassified); USES (Uses)
(ellagitannins; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Pruritus
(formulation for treating; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Caesalpinia spinosa
(gallotannin of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Drug delivery systems
(implants; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Hepadnaviridae
Herpesviridae
Iridovirus
Orthomyxovirus
Paramyxovirus
Pneumocystis carinii
Poxviridae
(infection with, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Intestine, disease
(inflammatory, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Drug delivery systems
(injections; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Skin, disease
(insect bite, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Poison ivy
Poison oak
(irritation from, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Skin, disease
(lesion, premalignant, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Cosmetics
Drug delivery systems
(lotions; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Intestine, disease
(malabsorption, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT Infection
(measles, treatment of; tannins in method of **isolating**

mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Mushroom
(mycelia of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Nerve, disease
(neuralgia, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Bran
Bran
(oat; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Drug delivery systems
(oral; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Solvents
(organic; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Skin, disease
(poisonous animal bite, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Glycols, uses
RL: NUU (Other use, unclassified); USES (Uses)
(polymers; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT **Proteins**, specific or class
RL: FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**polysaccharide**-bound; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Injury
Wound
(product for treating; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Drug delivery systems
(suppositories; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Aloe (genus)
Aloe barbadensis
Animal tissue culture
Anion exchangers
Antimicrobial agents
Beverages
Candy
Cation exchangers
Cell
Cereal (grain)
Chromatography
Detergents

Drug delivery systems
Ganoderma lucidum
Gel permeation chromatography
Grifola frondosa
Gums and Mucilages
Hide powder
Immunosuppressants
Leaf
Lentinula edodes
Oat
Plant (Embryophyta)
Plant tissue culture
Plantago major
Plantago ovata
Preservatives
Shampoos
Solvents
Sunscreens
Surfactants
Trametes versicolor
Wound healing
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT **Polysaccharides**, biological studies
RL: FFD (Food or feed use); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Albumins, uses
Caseins, uses
Gelatins, uses
Polyamides, uses
Polyoxyalkylenes, uses
Proanthocyanidins
Proteins, general, uses
Tannins
RL: NUU (Other use, unclassified); USES (Uses)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Anti-inflammatory agents
(topical, ointments; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Drug delivery systems
(topical; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT AIDS (disease)
Allergy
Alopecia
Anxiety
Asthma
Cystic fibrosis
Hypercholesterolemia
Immunodeficiency
Inflammation

Influenza
Leukemia
Liver, neoplasm
Lupus erythematosus
Malnutrition
Multiple sclerosis
Mycosis
Neoplasm
Rheumatic fever
Sunburn
Tuberculosis
(treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Stomach, disease
(ulcer, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Intestine, disease
(ulcerative colitis, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Infection
(viral, treatment of; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 532-32-1, Sodium benzoate 24634-61-5, Potassium sorbate
RL: NUU (Other use, unclassified); USES (Uses)
(as preservative; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 108-95-2, Phenol, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(resin specific for; tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 283603-85-0P, Vitto-Mannan
RL: FFD (Food or feed use); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 64-17-5, **Ethanol**, uses 67-56-1, Methanol, uses 67-64-1, Acetone, uses 71-36-3, Butanol, uses 121-79-9, n-Propyl-gallate 149-91-7, Gallic acid, uses 646-06-0, 1,3-Dioxolane 1391-79-3, Granatin 7631-90-5, Sodium bisulfite 7732-18-5, Water, uses 7757-82-6, Sodium sulfate, uses 9003-01-4D, Polyacrylic acid, compds. 9003-39-8, Polyvinylpyrrolidone 9003-53-6, Polystyrene 9005-65-6, Tween 80 23094-69-1, Corilagin 25322-68-3 60976-49-0, Geraniin
RL: NUU (Other use, unclassified); USES (Uses)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 4049-33-6DP, compds. 9051-97-2DP, compds. 11078-30-1DP, Galactomannan, compds. 55965-23-6DP, compds.
RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 3458-28-4DP, Mannose, acetylated, polymers 9041-22-9DP, β-Glucan, compds.
RL: PUR (Purification or recovery); PREP (Preparation)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)
IT 73-78-9, Lidocaine hydrochloride
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tannins in method of **isolating** mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

L173 ANSWER 30 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:907606 HCAPLUS
DOCUMENT NUMBER: 134:307679
TITLE: Production of **extract** powder of **Grifola** frondosa and its chemical components analysis
AUTHOR(S): Xu, Jie; Chen, Tiqiang; Zhu, Peigen; Li, Kaiben; Lin, Zhangyu
CORPORATE SOURCE: Fujian Academy of Agricultural Science, Fuzhou, 350013, Peop. Rep. China
SOURCE: Jiangxi Nongye Daxue Xuebao (2000), 22(3), 428-430
CODEN: JNXUEV; ISSN: 1000-2286
PUBLISHER: Jiangxi Nongye Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB **Extraction** with hot water, concentration and spray-drying under vacuum condition was applied to produce the **extract** powder of **Grifola** frondosa. The analytic results showed that the content of crude **protein**, crude fat, total carbohydrate, crude **polysaccharide**, ash and crude fiber were 7.64%, 23.96%, 0.27%, 48.05%, 24.55%, 6.95% and less than 0.4% resp. This **extract** powder was abundant in mineral element: P 2.16 mg/g, Ca 430 μg/g, Mg 970 Wg/g, Zn 56 Wg/g, Fe 83.1 μg/g, Mn 7.3, g/g and Cu 9.7 Wg/g. Eighteen kinds of amino acids, totaled 12.66 mg/100 g were checked out and the **ratio** of essential amino acids was 41.0%. In addition, 266.83 mg/100 g Taurine was checked out. Clin. test results showed that heavy mental elements and microbial quantity of the **extract** powder were coincided with the hygienic standard
CC 10-1 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 17
ST **Grifola ext** powder nutrition
IT Amino acids, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(essential; production of **extract** powder of **Grifola** frondosa and chemical components anal.)
IT **Grifola frondosa**
Health food
(production of **extract** powder of **Grifola** frondosa and chemical components anal.)
IT Amino acids, biological studies
Carbohydrates, biological studies
Fats and Glyceridic oils, biological studies
Fibers
Mineral elements, biological studies
Polysaccharides, biological studies
Proteins, general, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)
(production of **extract** powder of **Grifola** frondosa and chemical components anal.)

IT 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(hot; production of **extract** powder of **Grifola** frondosa and chemical components anal.)

IT 107-35-7, Taurine 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(production of **extract** powder of **Grifola** frondosa and chemical components anal.)

L173 ANSWER 31 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:784129 HCAPLUS
DOCUMENT NUMBER: 132:26801
TITLE: Glycoproteins having lipid-mobilizing properties for treatment of obesity
INVENTOR(S): Tisdale, Michael John; Todorov, Penio Todorov
PATENT ASSIGNEE(S): UK
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962939	A2	19991209	WO 1999-GB1509	19990601
WO 9962939	A3	20000316		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2329138	AA	19991209	CA 1999-2329138	19990601
AU 9941527	A1	19991220	AU 1999-41527	19990601
EP 1082344	A2	20010314	EP 1999-925135	19990601
EP 1082344	B1	20030319		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002519303	T2	20020702	JP 2000-552149	19990601
AT 234862	E	20030415	AT 1999-925135	19990601
ES 2194464	T3	20031116	ES 1999-925135	19990601
US 6890899	B1	20050510	US 2000-701463	19990601
PRIORITY APPLN. INFO.:			GB 1998-11465 A	19980529
			WO 1999-GB1509 W	19990601

AB A biol. active lipid-mobilizing agent for use in therapy is disclosed which has the properties and characteristics of a Zn-α2-glycoprotein, or of a fragment thereof having an apparent mol. mass Mr greater than 6.0 kDa as determined by gel exclusion chromatog. Methods of

isolation and **purification** from biol. material are also disclosed together with uses of the material for making up pharmaceutical compns., especially pharmaceutical compns. useful for treating mammals to achieve weight reduction or for controlling obesity. In addition, uses of the material for developing diagnostic agents and for identifying inhibitors of lipolytic activity for therapeutic purposes are disclosed.

IC ICM C07K014-00

CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Glycoproteins**, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(Zn-α2-; glycoproteins having lipid-mobilizing properties for treatment of **obesity**)

IT Antiobesity agents
Antitumor agents
Blood analysis
Cachexia
Molecular weight
Preparative chromatography
Protein sequences
Purification
Test kits
Urine analysis
(glycoproteins having lipid-mobilizing properties for treatment of obesity)

L173 ANSWER 32 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:807437 HCAPLUS
DOCUMENT NUMBER: 132:49338
TITLE: **Bioactive** substances in **Grifola** frondosa. 1. Effects of administration of **Grifola** frondosa on blood pressure and body weight in spontaneously hypertensive rats
AUTHOR(S): Ohtsuru, Masaru; Horio, Hiroyuki; Masui, Hironori; Takeda, Imao
CORPORATE SOURCE: Dep. Food Sci. Nutr., Sch. Human Environ. Sci., Mukogawa Women's Univ., Nishinomiya-shi, 663-8558, Japan
SOURCE: Nippon Shokuhin Kagaku Kogaku Kaishi (1999), 46(12), 806-814
CODEN: NSKKEF; ISSN: 1341-027X
PUBLISHER: Nippon Shokuhin Kagaku Kogakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB We examined the effects of **Maitake** (**Grifola** frondosa) on body weight, blood pressure and biochem. components of blood in spontaneously hypertensive rats (SHR) for 37 days. Rats fed control diets containing powdered **Maitake** 10% level (M 10) and 20% level (M 20) showed suppressed body weight and blood pressure. No difference in organ wts. was found among the three groups except for the liver, the weight of which in the **Maitake** groups was lower than that of the control. The **Maitake** groups showed lower total cholesterol and triglyceride in the blood and increased total cholesterol in the feces. The weight-reducing effect did not appear in rats administered heat-treated **Maitake**, a residue of **Maitake extracted** with water, and the ethanol-soluble fraction of **Maitake**. Only **Maitake**

extract with cold water provided an evident weight-reducing effect. From these results, we concluded that **Maitake** contains a water-soluble, heat-labile substance that can suppress body weight and blood pressure.
CC 17-10 (Food and Feed Chemistry)
ST antihypertensive body wt blood lipid mushroom; **Grifola** antihypertensive body wt blood
IT Glycerides, biological studies
Lipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(blood; effects of administration of **Grifola** frondosa on blood pressure, body weight, and biochem. compds. of blood in spontaneously hypertensive rats)
IT Feces
(cholesterol of; effects of administration of **Grifola** frondosa on blood pressure, body weight, and biochem. compds. of blood in spontaneously hypertensive rats)
IT Antihypertensives
Blood pressure
Body weight
Grifola frondosa
(effects of administration of **Grifola** frondosa on blood pressure, body weight, and biochem. compds. of blood in spontaneously hypertensive rats)
IT 57-88-5, Cholesterol, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(blood; effects of administration of **Grifola** frondosa on blood pressure, body weight, and biochem. compds. of blood in spontaneously hypertensive rats)

L173 ANSWER 33 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:131437 HCAPLUS
DOCUMENT NUMBER: 126:233640
TITLE: Free radical scavenging activities of mushroom polysaccharide **extracts**
AUTHOR(S): Liu, F.; Ooi, V. E. C.; Chang, S. T.
CORPORATE SOURCE: Dep. Biol., Chinese Univ. Hong Kong, Shatin, Hong Kong
SOURCE: Life Sciences (1997), 60(10), 763-771
CODEN: LIFSAK; ISSN: 0024-3205
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The superoxide and hydroxyl radical scavenging activities of eight mushroom antitumor polysaccharide **exts.** were investigated using the phenazin methosulfate-NADH-nitroblue tetrazolium system and the ascorbic acid-Cu2+-cytochrome C system, resp. The results showed that six of eight mushroom polysaccharide **exts.** had superoxide and hydroxyl radical scavenging activities. The protein content of the polysaccharide **exts.** appeared to contribute a direct effect on free radical scavenging activity. However, none of the mushroom polysaccharide **exts.** had antioxidative activity as measured by detecting malondialdehyde (MDA) contents of liver microsomes.
CC 1-12 (Pharmacology)
IT **Glycoproteins**, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PS-K; free radical scavenging activities of mushroom polysaccharide

exts. in relation to antioxidant activity)

IT Ganoderma lucidum
Grifola umbellata
Mushroom
Schizophyllum commune
Tremella fuciformis
Tricholoma lobayensis
Volvariella volvacea
(free radical scavenging activities of mushroom polysaccharide **exts.** in relation to antioxidant activity)

IT Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(free radical scavenging activities of mushroom polysaccharide **exts.** in relation to antioxidant activity)

IT Radicals, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(free radical scavenging activities of mushroom polysaccharide **exts.** in relation to antioxidant activity)

IT Antioxidants
(pharmaceutical; free radical scavenging activities of mushroom polysaccharide **exts.** in relation to antioxidant activity)

IT 37339-90-5, Lentinan
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(free radical scavenging activities of mushroom polysaccharide **exts.** in relation to antioxidant activity)

IT 3352-57-6, Hydroxyl radical, biological studies 11062-77-4, Superoxide
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(free radical scavenging activities of mushroom polysaccharide **exts.** in relation to antioxidant activity)

L173 ANSWER 34 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:205477 HCAPLUS
DOCUMENT NUMBER: 124:285794
TITLE: Serum markers of collagen type I metabolism in spontaneously hypertensive rats: Relation to myocardial fibrosis
AUTHOR(S): Diez, Javier; Panizo, Angel; Gil, Maria J.; Monreal, Ignacio; Hernandez, Marta; Mindan, Javier Pardo
CORPORATE SOURCE: School Medicine, University Navarra, Pamplona, 31080, Spain
SOURCE: Circulation (1996), 93(5), 1026-32
CODEN: CIRCAZ; ISSN: 0009-7322
PUBLISHER: American Heart Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The assay of serum peptides of extracellular collagen synthesis and degradation could provide an indirect estimate of the rate of fibrillar turnover.
This study was designed to investigate whether serum peptides of collagen type I synthesis and degradation are altered in spontaneously hypertensive rats (SHR) with left ventricular hypertrophy and whether these serum collagen-derived peptides are related to myocardial fibrosis. The authors measured serum levels of carboxy-terminal propeptide of procollagen type I (PIP) as a marker of collagen I synthesis and serum levels of the

pyridinoline cross-linked telopeptide domain of collagen type I (CITP) as a marker of fibrillar collagen I degradation in ten 36-wk-old normotensive Wistar-Kyoto (WKY) rats, ten 36-wk-old SHR and, ten 16-wk-old SHR treated with the angiotensin-converting enzyme inhibitor quinapril (10 mg/kg body weight per day, orally) for 20 wk. PIP and CITP were determined by specific RIAs.

Histomorphometric and immunohistochem. studies of the left ventricle were performed in all rats. In untreated SHR compared with WKY rats, the authors found a more extensive interstitial and perivascular fibrosis, an increased collagen volume fraction, a more marked deposition of collagen type I, an increased serum concentration of PIP, and a similar serum concentration of CITP. In quinapril-treated SHR compared with untreated SHR, the authors found an absence of left ventricular hypertrophy, a marked decrease of fibrosis, a lower collagen volume fraction, a diminished deposition of collagen type I, a decreased concentration of PIP, and a similar concentration of CITP.

A direct correlation was found between the collagen volume fraction and serum PIP (r=.753) in untreated SHR. These results suggest that tissue metabolism of collagen type I is abnormal in SHR and can be normalized by treatment with quinapril. On the basis of the findings, the authors propose that serum PIP may be a marker of collagen type I-dependent myocardial fibrosis in rats with genetic hypertension.

CC 14-5 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1

IT **Glycoproteins**, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(PICP (procollagen type I C-terminal propeptide), collagen type I-derived serum peptides in spontaneously **hypertensive** rats with left ventricular hypertrophy as markers of myocardial fibrosis)

L173 ANSWER 35 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:453311 HCAPLUS
DOCUMENT NUMBER: 125:111811
TITLE: Expression of ICAM-1 on glomeruli is associated with progression of diabetic nephropathy in a genetically obese diabetic rat, Wistar fatty
AUTHOR(S): Matsui, Hideki; Suzuki, Masami; Tsukuda, Ryoichi; Iida, Kyoko; Miyasaka, Masayuki; Ikeda, Hitoshi
CORPORATE SOURCE: Drug Safety Research Laboratories, Takeda Chemical Industries Ltd., Ibaraki, 300-41, Japan
SOURCE: Diabetes Research and Clinical Practice (1996), 32(1-2), 1-9
CODEN: DRCPE9; ISSN: 0168-8227
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We developed an animal model for non-insulin-dependent diabetes mellitus, a genetically obese rat strain, Wistar fatty. These rats show obesity-related features such as hyperinsulinemia and hyperlipemia, and only males develop diabetic features including hyperglycemia, glucosuria and polyuria as they age. Histopathol. study demonstrated a deposition of PAS-pos. granules in the epithelial cells and a diffuse thickening of the mesangial area and moderate changes of the renal tubules. We found that ICAM-1 is expressed on the glomeruli of male Wistar fatty rats and the expression is associated with the development of nephropathy; it is weak at 5 wk, becomes markedly strong at 15 wk and progresses further at 29 wk of age. We tried in vivo administration of monoclonal antibody, anti-ICAM-1

alone or together with anti-LFA-1 into male Wistar fatty rats during the period from 5 wk to 17 wk of age. The treatment, however, could not prevent the development of nephropathy. ICAM-1 expressed on the glomeruli of Wistar fatty rats seems not to play a key role in development of the nephropathy by mediating leukocyte infiltration. It will be a useful marker of the development of the disease.

CC 14-8 (Mammalian Pathological Biochemistry)

IT **Glycoproteins**, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(ICAM-1 (intercellular adhesion mol. 1), ICAM-1 expression on glomeruli association with progression of diabetic nephropathy in genetically **obese** diabetic rat)

L173 ANSWER 36 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:646323 HCAPLUS
DOCUMENT NUMBER: 121:246323
TITLE: Blood pressure-stabilizing agents containing substances having superoxide dismutase-like activities and/or antioxidant activities
INVENTOR(S): Kato, Kunihiko; Nakano, Masatoshi
PATENT ASSIGNEE(S): Yunie KK, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06199694	A2	19940719	JP 1992-84865	19920306
PRIORITY APPLN. INFO.:			JP 1992-84865	19920306

AB The title agents contain substances having superoxide dismutase (SOD)-like activities and/or antioxidant activities (including scavenging activities), phenols, and sugars (glycoproteins, flavonoid glycosides, etc.). Oral administration of an aqueous solution containing 0.25% a composition containing
1-50 mg/g flavonoid glycoside, 2-20% proteins, 3-15% phenol, and substance having ≥20,000 U/g (the solution) SOD-like activity and/or antioxidant activity (at .apprx.1000 mL/day for 2-3 mo) was effective in therapy of patients with hypertension or hypotension. The solution showed active O-removing and -scavenging effect.

IC ICM A61K037-50
ICS A61K031-015; A61K031-05; A61K031-195; A61K031-355; A61K031-375; A61K031-70

CC 1-8 (Pharmacology)

IT Carbohydrates and Sugars, biological studies
Glycoproteins, biological studies
Phenols, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(compds. having superoxide dismutase-like and/or antioxidant activities and phenols and sugars for **blood pressure** stabilization)

L173 ANSWER 37 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:66845 HCAPLUS

DOCUMENT NUMBER: 118:66845
TITLE: Sulfated β-glucan for treatment of retrovirus infection
INVENTOR(S): Ishikawa, Koichi; Nanba, Hiroaki; Kawachi, Teruyoshi
PATENT ASSIGNEE(S): Korumedea Japan K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04308531	A2	19921030	JP 1991-150827	19910404
JP 06099320	B4	19941207		
PRIORITY APPLN. INFO.:			JP 1991-150827	19910404

AB Sulfated glycoproteins **isolated** from **Maitake** (a plant grown in Japan) are effective in treatment of AIDS. A method of **extracting** the glycoproteins is disclosed, and inhibitory activity against HIV demonstrated.
IC ICM A61K031-72
ICS A61K035-84; C08B037-00
CC 63-4 (Pharmaceuticals)
Section cross-reference(s): 11
ST **Maitake glycoprotein** AIDS treatment
IT **Grifola frondosa**
(**glycoprotein extraction** from, for AIDS treatment)
IT Acquired immune deficiency syndrome
(treatment of, **Maitake glycoproteins** for)
IT Virus, animal
(human immunodeficiency 1, infection by, treatment of, **Maitake glycoproteins** for)
IT **Glycoproteins**, specific or class
RL: BIOL (Biological study)
(sulfo-, from **Maitake**, for AIDS treatment)

L173 ANSWER 38 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:437718 HCAPLUS
DOCUMENT NUMBER: 113:37718
TITLE: Chemical features of water-soluble polysaccharides in the fruit body of **Grifola** frondosa
AUTHOR(S): Kato, Koji; Okumura, Naomi; Yamauchi, Ryo; Ueno, Yoshimitsu
CORPORATE SOURCE: Fac. Agric., Gifu Univ., Gifu, 501-11, Japan
SOURCE: Gifu Daigaku Nogakubu Kenkyu Hokoku (1989), (54), 199-203
CODEN: GNKEAH; ISSN: 0072-4513
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Polysaccharides from **exts.** of G. frondosa fruiting body gave maltose by the degradation with α-amylase from Bacillus sp. Polysaccharides were further fractionated on DEAE-cellulose column using M/20 and saturated Na2B4O7, and M/20 NaOH. Sugars in those fractions were transformed to alditol acetates and analyzed by gas-chromatog. The cold water **extract** contained polysaccharides composed of glucose (I), galactose (II), mannose (III), and rhamnose (IV) with 4.5-5.4 protein and 24.3-63.9 sugar contents; and of I, II, III, and fucose (V) with 26.7 protein and 25.4% sugar contents. Polysaccharides from the hot water **extract** were further fractionated on Sepharose CL-4B column with M/10

NaCl. A polysaccharide of [α]D +167°, hydrolyzable with glucoamylase from Rhizopus delemer and giving only I, and polysaccharides composed of I, II, III, IV, and V with 7.5 protein and 52.8 sugar contents; and of I, II, III, and V with 14.5 protein and 20.7% sugar contents, were obtained from the hot water **extract**

CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 33

ST **Grifola** fruiting body polysaccharide

IT **Glycoproteins**, biological studies
Polysaccharides, biological studies
RL: BIOL (Biological study)
(of **Grifola** frondosa fruiting body)

IT **Grifola frondosa**
(polysaccharides of fruiting body of)

IT 50-99-7, Glucose, biological studies 69-79-4, Maltose 2438-80-4, Fucose 3458-28-4, Mannose 3615-41-6, Rhamnose
RL: BIOL (Biological study)
(polysaccharides of rooting body of **Grifola** frondosa containing)

L173 ANSWER 39 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:466431 HCAPLUS
DOCUMENT NUMBER: 109:66431
TITLE: Antitumor activity exhibited by orally administered **extract** from fruit body of **Grifola** frondosa (**Maitake**)
AUTHOR(S): Hishida, Ikuko; Nanba, Hiroaki; Kuroda, Hisatora
CORPORATE SOURCE: Lab. Microbiol., Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1988), 36(5), 1819-27
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The acid-insol., alkali-soluble, hot-water-**extractable** polymer (a **polysaccharide** containing approx. 30% of **protein**; D-fraction) obtained from the fruit bodies of G. Frondosa (**Maitake**) exhibited antitumor activities against allogenic and syngeneic tumors after oral administration to mice. The Winn assay conducted to examine the tumor growth-suppressing effect revealed a complete inhibition of the tumor by the oral administration of the D-fraction, indicating that stimulation of the immune response system triggered by the tumor-bearing state is activated by the D-fraction. Consequently, the activity of the D-fraction on cells associated with the immune response was examined The cytolytic activity and interleukin-1 productivity of macrophages or T cells which exhibit antigen-specific cytotoxicity were enhanced. The D-fraction was found to potentiate the delayed-type hypersensitivity response which is associated with tumor growth suppression.

CC 1-6 (Pharmacology)

ST **Grifola polysaccharide** fruit **ext** antitumor

IT Macrophage
(cytolytic activity of and interleukin formation by, enhancement of, by **Grifola** frondosa **polysaccharide**-containing fraction)

IT Immunostimulation
(in neoplasm inhibition by **Grifola** frondosa **polysaccharide**-containing fraction)

IT **Grifola frondosa**
(**polysaccharide**-containing fraction of fruit of, neoplasm inhibition by)

IT Neoplasm inhibitors
(**polysaccharide**-containing fraction of **Grifola** frondosa

as, mechanism of)
IT **Polysaccharides**, biological studies
RL: BIOL (Biological study)
(**Grifola** frondosa **extract** containing, neoplasm inhibition by)
IT Lymphocyte
(T-, cytolytic activity of and interleukin formation by, enhancement of, by **Grifola** frondosa **polysaccharide**-containing fraction)
IT Allergy
(delayed hypersensitivity, potentiation of, by **Grifola** frondosa **polysaccharide**-containing fraction, tumor growth suppression in relation to)
IT Lymphokines and Cytokines
RL: FORM (Formation, nonpreparative)
(interleukin 1, formation of, by macrophages and T lymphocytes, enhancement of, by **Grifola** frondosa **polysaccharide**-containing fraction)

L173 ANSWER 40 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:400409 HCAPLUS
DOCUMENT NUMBER: 107:409
TITLE: The chemical structure of an antitumor polysaccharide in fruit bodies of **Grifola** frondosa (**Maitake**)
AUTHOR(S): Nanba, Hiroaki; Hamaguchi, Atsuko; Kuroda, Hisatora
CORPORATE SOURCE: Lab. Microbiol., Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1987), 35(3), 1162-8
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A polysaccharide was **extracted** from fruit bodies of G. frondosa (**Maitake**), and the chemical structure and antitumor activity were studied. The **extracted** polysaccharide could be hydrolyzed by β-glucanase into glucose, indicating it to be a β-glucan. The sample gave Me 2,3,4,6-tetra-O-, Me 2,4,6-tri-O-, Me 2,3,4-tri-O, and Me 2,4-di-O-methylglucoside in the molar **ratio** of 4:21:4 on methylation. In carbon-13 NMR spectrum, the signals of C-6' [related to (1-6) bonding] and C-3' [related to (1-3) bonding] were observed in addition to those of free C-6 and C-3. These results indicate that the major chain is made up of β-1,6-linked glucose residues with branches of β-1,3-linked glucose. This glucan inhibited the growth of Sarcoma 180 tumor in ICR mice.
CC 1-6 (Pharmacology)
Section cross-reference(s): 11, 33
ST antitumor glucoside structure **Grifola** fruit; polysaccharide structure **Grifola** fruit
IT **Glycoproteins**, biological studies
RL: BIOL (Biological study)
(of Polyporus versicolor, antitumor activity of polysaccharides from **Grifola** frondosa fruits in relation to)
IT **Grifola frondosa**
(polysaccharides from fruits of, antitumor activity and structure determination of)
IT Neoplasm inhibitors
(polysaccharides from **Grifola** frondosa fruits)

L173 ANSWER 41 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:508076 HCAPLUS
DOCUMENT NUMBER: 105:108076
TITLE: Studies on the host-mediated antitumor polysaccharides. Part IX. Fractionation and characterization of antitumor polysaccharides from **Maitake**, **Grifola** frondosa
AUTHOR(S): Mizuno, Takashi; Ohsawa, Keiko; Hagiwara, Naomi; Kuboyama, Reiko
CORPORATE SOURCE: Fac. Agric., Shizuoka Univ., Shizuoka, 422, Japan
SOURCE: Agricultural and Biological Chemistry (1986), 50(7), 1679-88
CODEN: ABCHA6; ISSN: 0002-1369
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three groups of polysaccharides from the edible mushroom "**Maitake**," the cultured fruiting body of G. frondosa, were **extracted** with hot H2O, 3% NH4-oxalate (100°C), and 5% NaOH solution (30°C). The 3 fractions, FI, FII and FIII, were divided into several subfractions using various chromatog. techniques. The fractions with host-mediated antitumor activity were water-soluble β-(1→3)-D-glucan [9051-97-2], water-soluble acidic β-D-glucan [9041-22-9], water-insol. acidic xyloglucan [37294-28-3], acidic heteroglycan, and acidic glycoprotein. None of the polysaccharides that were active i.p. against mouse-implanted Sarcoma 180 had any activity when administered orally.
CC 1-6 (Pharmacology)
Section cross-reference(s): 11
ST polysaccharide **isolation** **Grifola** antitumor
IT Polysaccharides, biological studies
RL: BIOL (Biological study)
(antitumor activity and characterization of, of **Grifola** frondosa)
IT Neoplasm inhibitors
(polysaccharides of **Grifola** frondosa as)
IT **Grifola frondosa**
(polysaccharides of, antitumor activity and characterization of)
IT **Glycoproteins**
RL: PROC (Process)
(acid, of **Grifola** frondosa, antitumor activity and characterization of)
IT 9041-22-9 9051-97-2 37294-28-3
RL: PROC (Process)
(of **Grifola** frondosa, antitumor activity and characterization of)

L173 ANSWER 42 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:122759 HCAPLUS
DOCUMENT NUMBER: 104:122759
TITLE: Effects of the antitumor agents from various natural sources on drug-metabolizing system, phagocytic activity and complement system in sarcoma 180-bearing mice
AUTHOR(S): Ito, Hitoshi
CORPORATE SOURCE: Sch. Med., Mie Univ., Tsu, 514, Japan
SOURCE: Japanese Journal of Pharmacology (1986), 40(3), 435-43
CODEN: JJPAAZ; ISSN: 0021-5198
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The correlation between the antitumor activity and effects on such biol. properties as phagocytic activity in the reticuloendothelial system, the

complement-C3 [80295-41-6] activation, hepatic drug-metabolizing activities and pentobarbital-induced narcosis, of antitumor agents from various natural sources such as BB (Broncasma Berna), GU-P (Grifora umbellata polysaccharide), OK-432 [39325-01-4], PS-K, and RA-P (Rumex acetosa polysaccharide) were studied in mice implanted with sarcoma 180 solid tumor. All of the agents depressed aniline hydroxylase [9012-80-0] and aminopyrine demethylase [9037-69-8] activities, prolonged the duration of pentobarbital-induced narcosis, and enhanced the phagocytic activity and C3 activity. Especially, RA-P which has the strongest antitumor activity was the most effective in affecting these activities. The biol. activities of GU-P at a dose of 10 mg/kg reached the same level as that found with PS-K at a dose of 100 mg/kg. All of these effects may relate to the antitumor mechanism of the tested agents.

CC 1-6 (Pharmacology)

IT **Glycoproteins**
RL: BIOL (Biological study)
(from Polypyrus versicolor, drug-metabolizing enzyme of liver and phagocytosis in reticuloendothelium and complement response to, neoplasm inhibition in relation to)

IT **Grifola umbellata**
Rumex acetosa
(polysaccharides, drug-metabolizing enzyme of liver and phagocytosis in reticuloendothelium and complement response to, neoplasm inhibition in relation to)

L173 ANSWER 43 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:201195 HCAPLUS
DOCUMENT NUMBER: 102:201195
TITLE: Neutral and acidic antitumor **polysaccharides extracted** from cultured fruit bodies of **Grifola** frondosa
AUTHOR(S): Ohno, Naohito; Iino, Kazuyoshi; Suzuki, Iwao; Oikawa, Shozo; Sato, Kichiro; Miyazaki, Toshio; Yadomae, Toshiro
CORPORATE SOURCE: Tokyo Coll. Pharm., Hachioji, 192-03, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(3), 1181-6
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Water-soluble glucan fractions **extracted** from the cultured fruit bodies of G. frondosa with hot water, and with cold and hot NaOH containing urea showed potent antitumor activity in mice. Each fraction was separated into neutral and acidic glucan fractions on a DEAE-Sephadex A-25 (HCO3-) column. Both neutral and acidic fractions showed potent antitumor activity against Sarcoma 180 solid tumor in ICR mice. From the results of methylation anal. and 13C NMR spectroscopy, the neutral fractions contained mainly α-1,4 and 6-branched β-1,3-linkages, and the acidic fractions contained mainly β-1,6- and 6-branched β-1,3-linkages. The branching **ratio** was similar in both glucans. By colorimetric anal, each acidic fraction contained .apprx.2-5% uronic acid. Thus, cultured fruit bodies of G. frondosa contain neutral and acidic antitumor glucans.

CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 1

ST **Grifola** glucan neoplasm inhibitor

IT **Polysaccharides**, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(from **Grifola** frondosa fruiting bodies, antitumor activity of)
IT **Proteins**
Uronic acids
RL: BIOL (Biological study)
(of **polysaccharide** fraction of **Grifola** frondosa fruiting bodies)
IT Carbohydrates and Sugars, biological studies
RL: BIOL (Biological study)
(of **polysaccharides**, of **Grifola** frondosa fruiting bodies)
IT Neoplasm inhibitors
(**polysaccharides** as, from **Grifola** frondosa fruiting bodies)
IT **Grifola frondosa**
(**polysaccharides** of fruiting boeies of, antitumor activity of)
IT 14265-44-2, biological studies
RL: BIOL (Biological study)
(of **polysaccharide** fraction of **Grifola** frondosa)

L173 ANSWER 44 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:476030 HCAPLUS
DOCUMENT NUMBER: 105:76030
TITLE: Host-mediated antitumor polysaccharides. Part 9. Fractionation, chemical structure, chemical modification and antitumor activity of homo- and heteroglucans **isolated** from "**Maitake**", the fruiting body of **Grifola** frondosa
AUTHOR(S): Mizuno, Takashi; Ohsawa, Keiko; Hagiwara, Naomi; Kuboyama, Reiko
CORPORATE SOURCE: Fac. Agric., Shizuoka Univ., Shizuoka, 422, Japan
SOURCE: Shizuoka Daigaku Nogakubu Kenkyu Hokoku (1985), (35), 49-61
CODEN: SDNKAA; ISSN: 0559-8850
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Polysaccharides (PS) of cultivated **Maitake** (G. frondosa) and their antitumor activities were examined The fruiting body of **Maitake** was successively **extracted** with hot water, 3% aqueous NH4+ oxalate at 100°, and 5% aqueous NaOH at 30° to obtain water-soluble PS fraction 1 and water-insol. PS fractions 2 and 3, resp. Fractions 1, 2, and 3 were fractionated by DEAE-cellulose, Sephadex G-100, Sepharose CL-4B, and Con A-Sepharose 4B chromatog., EtOH precipitation, and dialysis to obtain water-soluble β-D-glucan (I) and water-soluble acidic β-D-glucan (II) from fraction 1, water-insol. acidic xyloglucan (III) from fraction 2 and acidic heteroglucan (IV) and 3 glycoproteins (V, VI and VII) from fraction 3. The antitumor activities were evaluated in ICR/JCL mice by the growth **ratio** of s.c.-implanted Sarcoma 180 to show fractions 2-3 and I-VII as active with ID50s 23.8, 16.7, 5.8, 12.9, 23.8, 16.1, 38.5, 13.9 and 9.3 mg/kg, resp. I had a **mol. weight** of 1,000,000 and was a β-(1→3)-D-glucan with β-(1→6) monoglucosyl branching, with min. average chain length of 5 and a degree of branching of 3; II had a **mol. weight** 500,000 and was composed of 82.4% glucose and 8.8% uronic acid. III had a **mol. weight** 50,000 and was a β-(1→3)-D-glucan with (1→6) and (1→2) branching. IV had a **mol. weight** 100,000-250,000 and contained 20.4% uronic acid and small amts. of fucose, xylose, and mannose. The acidic glycoproteins, V, VI, and VII had **mol. wts.** 1,000,000, 70,000-100,000, and

20,000-50,000, resp., and protein contents of 18.1, 10.6, and 26.9%, resp., and contained 13.5, 10.0, and 9.8% uronic acid, resp. The antitumor activity of the polyaldehydes, polyols, and controlled Smith degradation products prepared from fractions 1-3 were tested, but the antitumor activity was not increased significantly.

CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 1

ST **Grifola** polysaccharide antitumor activity; glycan **Grifola** antitumor activity; **glycoprotein Grifola** antitumor activity

IT **Glycoproteins**
Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from **Grifola** frondosa fruiting body, antitumor activity of)

IT Neoplasm inhibitors
(polysaccharide containing, from fruiting body of **Grifola** frondosa)

IT Uronic acids
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(polysaccharides containing, from **Grifola** frondosa fruiting body, antitumor activity of)

IT **Grifola frondosa**
(polysaccharides from fruiting bodies of, antitumor activity of)

IT 9041-22-9 37294-28-3
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from **Grifola** frondosa fruiting body, antitumor activity of)

L173 ANSWER 45 OF 99 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:191193 HCAPLUS
DOCUMENT NUMBER: 98:191193
TITLE: Screening of host-mediated antitumor polysaccharides by crossed immunoelectrophoresis using fresh human serum
AUTHOR(S): Shimura, Keishiro; Ito, Hitoshi; Hibasami, Hiroshige
CORPORATE SOURCE: Sch. Med., Mie Univ., Mie, 514, Japan
SOURCE: Japanese Journal of Pharmacology (1983), 33(2), 403-8
CODEN: JJPAAZ; ISSN: 0021-5198
DOCUMENT TYPE: Journal
LANGUAGE: English

AB On crossed immunoelectrophoresis, human serum complement C3 [80295-41-6] converted by antitumor polysaccharides [ATSO (antitumor polysaccharide oral), Agaricus blazei polysaccharide, **Grifola** umbellata polysaccharide, polysaccharide Kureha, and zymosan] moved faster than native C3, appearing as the most anodal of 3 C3 peaks and was designated as the 3rd peak. The **ratio** of height of the 3rd peak to the α2-macroglobulin peak was linearly proportional to the dose of ATSO. At the dose of 500 μg/mL antitumor polysaccharides, the **ratios** were higher than 0.76, and the **ratios** for the serum treated with polysaccharides possessing no antitumor activity (dextran [9004-54-0] and gum arabic [9000-01-5]) were less than about 0.52. This **ratio** can be used as a measure for the antitumor activity of polysaccharides.

CC 1-1 (Pharmacology)

IT **Glycoproteins**
RL: BIOL (Biological study)
(from Polyporus versicolor, neoplasm inhibition by, assessed by

complement C3 conversion, in human)
IT **Grifola umbellata**
(polysaccharide GU-P of, antitumor activity of, assessed by complement C3 conversion, in human)

L173 ANSWER 46 OF 99 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2000161032 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10696116
TITLE: The use of mushroom glucans and proteoglycans in cancer treatment.
AUTHOR: Kidd P M
SOURCE: Alternative medicine review : a journal of clinical therapeutic, (2000 Feb) Vol. 5, No. 1, pp. 4-27. Ref: 91 Journal code: 9705340. ISSN: 1089-5159.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Consumer Health
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 7 Apr 2000
Last Updated on STN: 7 Apr 2000
Entered Medline: 28 Mar 2000

ABSTRACT:
Immunoceuticals can be considered as substances having immunotherapeutic efficacy when taken orally. More than 50 mushroom species have yielded potential immunoceuticals that exhibit anticancer activity in vitro or in animal models and of these, six have been investigated in human cancers. All are non-toxic and very well tolerated. Lentinan and schizophyllan have little oral activity. Active Hexose Correlated Compound (AHCC) is poorly defined but has shown early clinical promise. **Maitake** D-Fraction has limited proof of clinical efficacy to date, but controlled research is underway. Two proteoglycans from Coriolus versicolor - PSK (Polysaccharide-K) and PSP (Polysaccharide-Peptide - have demonstrated the most promise. In Japanese trials since 1970, PSK significantly extended survival at five years or beyond in cancers of the stomach, colon-rectum, esophagus, nasopharynx, and lung (non-small cell types), and in a HLA B40-positive breast cancer subset. PSP was subjected to Phase II and Phase III trials in China. In double-blind trials, PSP significantly extended five-year survival in esophageal cancer. PSP significantly improved quality of life, provided substantial pain relief, and enhanced immune status in 70-97 percent of patients with cancers of the stomach, esophagus, lung, ovary, and cervix. PSK and PSP boosted immune cell production, ameliorated chemotherapy symptoms, and enhanced tumor infiltration by dendritic and cytotoxic T-cells. Their extremely high tolerability, proven benefits to survival and quality of life, and compatibility with chemotherapy and radiation therapy makes them well suited for cancer management regimens.

CONTROLLED TERM: *Agaricales
Humans
*Neoplasms: DT, drug therapy
Neoplasms: MO, mortality
Plant Extracts: TU, therapeutic use
*Polysaccharides: TU, therapeutic use
***Proteoglycans: TU, therapeutic use**
Survival Analysis
CHEMICAL NAME: 0 (Active Hexose Correlated Compound); 0 (Plant **Extracts**); 0 (Polysaccharides); 0 (Proteoglycans)

L173 ANSWER 47 OF 99 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 94348467 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8069265
TITLE: Monoclonal antibody to proteoglycan derived from **Grifola** frondosa (**Maitake**).
AUTHOR: Hirata A; Adachi Y; Itoh W; Komoda M; Tabata K; Sugawara I
CORPORATE SOURCE: Research Laboratory, Taito Co., Ltd., Kobe, Japan.
SOURCE: Biological & pharmaceutical bulletin, (1994 Apr) Vol. 17, No. 4, pp. 539-42.
Journal code: 9311984. ISSN: 0918-6158.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199409
ENTRY DATE: Entered STN: 6 Oct 1994
Last Updated on STN: 29 Jan 1999
Entered Medline: 26 Sep 1994
ABSTRACT:
A murine monoclonal antibody (MAb) was prepared by immunizing BALB/c mice with a proteoglycan fraction derived from **Grifola** frondosa (***Maitake*** mushroom), followed by the hybridization of spleen cells with mouse myeloma cells. The MAb (subclass; Ig G2b), designated MPG2, reacted with schizophyllan (SPG), curdlan, scleroglucan, laminarin and lentinan, but not with dextran, pullulan, mannan and xylan. Immunohistochemistry (ABC-GO method) showed that MAb MPG2 reacted with lysosomal proteoglycan and (1-->6)-beta-branched laminaritriose taken up by rabbit peritoneal macrophages. These results suggest that this MAb may recognize mainly (1-->3)-beta-D-glucan, and may be useful for determining the immunological properties of ***Grifola*** frondosa-derived proteoglycan.
CONTROLLED TERM: Check Tags: Female
Animals
*Antibodies, Monoclonal: IM, immunology
Antigen-Antibody Reactions
*Basidiomycota
Cross Reactions
Enzyme-Linked Immunosorbent Assay
*Glucans: IM, immunology
Immunization
Immunohistochemistry
Mice
Mice, Inbred BALB C
Mice, Nude
Polysaccharides: IM, immunology
Proteoglycans: IM, immunology
Rabbits
CHEMICAL NAME: 0 (Antibodies, Monoclonal); 0 (Glucans); 0 (Polysaccharides); 0 (Proteoglycans)

L173 ANSWER 48 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2005506892 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16178781
TITLE: Novel treatments for obesity and osteoporosis: targeting apoptotic pathways in adipocytes.
AUTHOR: Nelson-Dooley C; Della-Fera M A; Hamrick M; Baile C A
CORPORATE SOURCE: Departments of Animal and Dairy Sciences, University of Georgia, Athens, GA, USA.
SOURCE: Current medicinal chemistry, (2005) Vol. 12, No. 19, pp. 2215-25. Ref: 208
Journal code: 9440157. ISSN: 0929-8673.

PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200511
ENTRY DATE: Entered STN: 24 Sep 2005
Last Updated on STN: 8 Nov 2005
Entered Medline: 7 Nov 2005

ABSTRACT:
Obesity and osteoporosis have grave consequences for human health, quality of life, and even the efficiency of the labor force and economy. However, these pathologies share a common cell progenitor, revealing a surprising target for drug research and development. Recent findings show that high adipocyte count in bone marrow is directly related to bone loss, as fat cells replace osteoblasts (or bone-forming cells). The objective of this review is to examine the importance of adipocyte apoptosis in the treatment of obesity and/or osteoporosis, with special emphasis on natural products as promising leads for drug development. We have induced in vivo adipocyte apoptosis, using leptin, ciliary neurotrophic factor (CNTF), beta adrenergic agonists and conjugated linoleic acid (CLA) in rodents. The results of leptin treatments on rats are suppressed food intake, reduced body weight, reduced body fat, adipocyte apoptosis, and elevated energy expenditure. Further, leptin treatment of leptin-deficient (ob/ob) mice increases endosteal bone formation and bone mineral density. Adipocyte apoptosis has also been induced in vitro using tumor necrosis factor-alpha (TNF-alpha), (-)-epigallocatechin gallate (EGCG) from Camellia sinensis and ajoene, from Allium sativum. Natural products have potential for inducing apoptosis of adipose tissue, inhibiting bone marrow adipogenesis and increasing the expression of osteogenic factors in bone, thereby yielding effective treatments for obesity and osteoporosis.

CONTROLLED TERM:
*Adipocytes: DE, drug effects
Adipocytes: ME, metabolism
Adrenergic beta-Agonists: PD, pharmacology
Animals
Anti-Obesity Agents: PD, pharmacology
*Anti-Obesity Agents: TU, therapeutic use
*Apoptosis: DE, drug effects
Bone Marrow: ME, metabolism
Catechin: AA, analogs & derivatives
Catechin: PD, pharmacology
Cell Differentiation
Ciliary Neurotrophic Factor: PD, pharmacology
Disulfides: PD, pharmacology
Flavonoids: CH, chemistry
Flavonoids: PD, pharmacology
Humans
Leptin: ME, metabolism
Linoleic Acid: PD, pharmacology
Mesenchymal Stem Cells: CY, cytology
***Obesity: DT, drug therapy**
Obesity: ME, metabolism
*Osteoporosis: DT, drug therapy
Osteoporosis: ME, metabolism
Plant Extracts: PD, pharmacology
Research Support, Non-U.S. Gov't
Tumor Necrosis Factor-alpha: PD, pharmacology

CAS REGISTRY NO.: 154-23-4 (Catechin); 2197-37-7 (Linoleic Acid); 92285-01-3 (ajoene); 989-51-5 (epigallocatechin gallate)
CHEMICAL NAME: 0 (Adrenergic beta-Agonists); 0 (Anti-Obesity Agents); 0 (Ciliary Neurotrophic Factor); 0 (Disulfides); 0

(Flavonoids); 0 (Leptin); 0 (Plant **Extracts**); 0 (Tumor Necrosis Factor-alpha)

L173 ANSWER 49 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2004571883 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15494384
TITLE: Adjunctive granulocyte colony-stimulating factor therapy for diabetic foot infections.
AUTHOR: Reed Kelly S; Pai Manjunath P
CORPORATE SOURCE: Providence St. Vincent Medical Center, Portland, OR, USA.
SOURCE: The Annals of pharmacotherapy, (2004 Dec) Vol. 38, No. 12, pp. 2150-3. Electronic Publication: 2004-10-19. Ref: 20
Journal code: 9203131. ISSN: 1060-0280.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200501
ENTRY DATE: Entered STN: 17 Nov 2004
Last Updated on STN: 2 Feb 2005
Entered Medline: 31 Jan 2005
ABSTRACT:
OBJECTIVE: To evaluate the role of granulocyte colony-stimulating factor (G-CSF) as adjunctive therapy for the treatment of diabetic foot infections in non-neutropenic patients. DATA SOURCES: Clinical literature was accessed through MEDLINE (1965-April 2004). Key search terms included G-CSF, infection, and diabetes. In addition, relevant references from primary and secondary article bibliographies were **extracted.** DATA SYNTHESIS: Three clinical trials evaluating G-CSF for diabetic foot infections were identified. These data demonstrated positive effects of G-CSF on improvement of foot infections and risk of amputations. CONCLUSIONS: Controlled trials are necessary to validate the role of adjunctive G-CSF at reducing amputations in patients with diabetic foot infections.
CONTROLLED TERM: Anti-Infective Agents: TU, therapeutic use
***Diabetic Foot: DT, drug therapy**
Drug Therapy, Combination
***Granulocyte Colony-Stimulating Factor: TU, therapeutic use**
*Hematinics: TU, therapeutic use
Humans
Randomized Controlled Trials
Treatment Outcome
CAS REGISTRY NO.: 143011-72-7 (Granulocyte Colony-Stimulating Factor)
CHEMICAL NAME: 0 (Anti-Infective Agents); 0 (Hematinics)

L173 ANSWER 50 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2004241817 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15139786
TITLE: Management of hyperlipidaemia associated with heart transplantation.
AUTHOR: Wenke Klaus
CORPORATE SOURCE: Division of Cardiac Surgery, Hospital Munich-Bogenhausen, Munich, Germany.. klaus.wenke@extern.lrz-muenchen.de
SOURCE: Drugs, (2004) Vol. 64, No. 10, pp. 1053-68. Ref: 111
Journal code: 7600076. ISSN: 0012-6667.
PUB. COUNTRY: New Zealand
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200410
ENTRY DATE: Entered STN: 14 May 2004
Last Updated on STN: 5 Oct 2004
Entered Medline: 4 Oct 2004

ABSTRACT:
The past 20 years have seen considerable advances in the field of organ transplantation that have together led to a notable increase in survival rates and a reduction in postoperative morbidity of transplant recipients. However, these advances have been accompanied by the appearance of other complications of transplantation, such as post-transplant hyperlipidaemia, hypertension and graft coronary vasculopathy (GCV). GCV is an accelerated form of atherosclerosis in transplanted hearts that has proven to be one of the most important late complications of heart transplantation and is the single most limiting factor for long-term survival. The most important factors favouring the development of hyperlipidaemia after heart transplantation are inappropriate diet in combination with reduced physical activity, adverse effects of immunosuppressive therapy (ciclosporin [cyclosporin], corticosteroids) and polygenic hypercholesterolaemia in combination with ischaemic cardiomyopathy. The treatment of hyperlipidaemia in heart transplant recipients results in a variety of complications and side effects. In particular, interactions between lipid-lowering drugs and immunosuppressive therapy have been observed. Early attempts at treatment with bile acid binding agents and nicotinic acid derivatives often proved insufficiently effective, and led to unacceptable adverse effects and significant disturbances of ciclosporin metabolism. Fibric acid derivatives provided moderate reductions in triglyceride and total cholesterol levels that were mostly--with the exception of gemfibrozil--accompanied by significant impairment of renal function. Probucol achieved only an unsatisfactory reduction in low-density lipoprotein (LDL) cholesterol. Omega-3 fatty acids lower cholesterol levels and improve endothelial function in heart transplant recipients; however, the significance of these effects is still under discussion. As in the general patient population, use of HMG-CoA reductase inhibitors (statins) achieved significant reductions in cholesterol levels. Use of these substances has resulted in significantly extended long-term survival times, significantly less GCV and fewer severe graft rejections. Selective cholesterol absorption inhibitors, administered with or without statins, could provide another treatment option for heart transplant patients with hypercholesterolaemia. In severe familial hypercholesterolaemia, which is rarely observed in heart transplant recipients, treatment with statins can be combined with extracorporeal cholesterol elimination procedures such as heparin induced extracorporeal LDL cholesterol precipitation (HELP). HELP enables total cholesterol levels to be kept within any desired target range, and has been used successfully and without adverse effects in heart transplant recipients.

CONTROLLED TERM: Anticholesteremic Agents: PD, pharmacology
Anticholesteremic Agents: TU, therapeutic use
Carrier Proteins: PD, pharmacology
Carrier Proteins: TU, therapeutic use
Fatty Acids, Omega-3: PD, pharmacology
Fatty Acids, Omega-3: TU, therapeutic use
*Heart Transplantation: AE, adverse effects
Heparin: PD, pharmacology
Heparin: TU, therapeutic use
Humans
*Hyperlipidemia: DH, diet therapy
***Hyperlipidemia: DT, drug therapy**
Hyperlipidemia: ET, etiology
Immunosuppressive Agents: PD, pharmacology
Immunosuppressive Agents: TU, therapeutic use
Lipoproteins, LDL Cholesterol: ME, metabolism

Membrane Glycoproteins: PD, pharmacology
Membrane Glycoproteins: TU, therapeutic use
Probucol: PD, pharmacology
Probucol: TU, therapeutic use
Randomized Controlled Trials
CAS REGISTRY NO.: 23288-49-5 (Probucol); 9005-49-6 (Heparin)
CHEMICAL NAME: 0 (Anticholesteremic Agents); 0 (Carrier Proteins); 0 (Fatty Acids, Omega-3); 0 (Immunosuppressive Agents); 0 (Lipoproteins, LDL Cholesterol); 0 (Membrane Glycoproteins); 0 (bile acid binding proteins)

L173 ANSWER 51 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2004393097 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15296707
TITLE: Inhibition of cholesteryl ester transfer protein activity: a new therapeutic approach to raising high-density lipoprotein.
AUTHOR: Rader Daniel J
CORPORATE SOURCE: Center for Experimental Therapeutics and Department of Medicine, University of Pennsylvania School of Medicine, 654 BRB II/III, 421 Curie Boulevard, Philadelphia, PA 19104, USA.. rader@mail.med.upenn.edu
SOURCE: Current atherosclerosis reports, (2004 Sep) Vol. 6, No. 5, pp. 398-405. Ref: 54
Journal code: 100897685. ISSN: 1523-3804.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200502
ENTRY DATE: Entered STN: 7 Aug 2004
Last Updated on STN: 23 Feb 2005
Entered Medline: 22 Feb 2005

ABSTRACT:
High-density lipoprotein (HDL) cholesterol levels are inversely associated with risk of atherosclerotic cardiovascular disease (ASCVD), leading to the concept that pharmacologic therapy to raise HDL cholesterol levels may reduce ASCVD risk. There is substantial interest in the concept of inhibition of the cholesteryl ester transfer protein (CETP) as a novel strategy for raising HDL cholesterol levels, as well as reducing levels of atherogenic lipoproteins. This article reviews the physiology of CETP in lipoprotein metabolism and the data in animals and humans that are relevant to the question of whether CETP inhibition may some day be part of the clinical armamentarium for treating dyslipidemia and atherosclerotic vascular disease.

CONTROLLED TERM: Animals
Arteriosclerosis: DT, drug therapy
Arteriosclerosis: ET, etiology
Cardiovascular Diseases: DT, drug therapy
Cardiovascular Diseases: ET, etiology
Carrier Proteins: GE, genetics
*Carrier Proteins: PD, pharmacology
Carrier Proteins: TU, therapeutic use
Glycoproteins: DF, deficiency
Glycoproteins: GE, genetics
***Glycoproteins: PD, pharmacology**
Glycoproteins: TU, therapeutic use
Humans
Hyperlipidemia: CO, complications
Hyperlipidemia: DT, drug therapy

*Lipoproteins, HDL Cholesterol: DE, drug effects
Lipoproteins, HDL Cholesterol: ME, metabolism
Mice
Polymorphism, Genetic
CHEMICAL NAME: 0 (Carrier Proteins); 0 (Glycoproteins); 0 (Lipoproteins, HDL Cholesterol); 0 (cholesterol ester transfer proteins)

L173 ANSWER 52 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2004098275 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14987072
TITLE: Biologically active compounds from Aphyllophorales (polypore) fungi.
AUTHOR: Zjawiony Jordan K
CORPORATE SOURCE: Department of Pharmacognosy and National Center for Natural Product Research, Research Institute of Pharmaceutical Sciences, School of Pharmacy, The University of Mississippi, University, Mississippi 38677-1848, USA.. jordan@olemiss.edu
SOURCE: Journal of natural products, (2004 Feb) Vol. 67, No. 2, pp. 300-10. Ref: 111
Journal code: 7906882. ISSN: 0163-3864.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200404
ENTRY DATE: Entered STN: 2 Mar 2004
Last Updated on STN: 1 May 2004
Entered Medline: 30 Apr 2004

ABSTRACT:
This review describes biologically active natural products isolated from Aphyllophorales, many of which are known as polypores. Polypores are a large group of terrestrial fungi of the phylum Basdiomycota (basidiomycetes), and they along with certain Ascomycota are a major source of pharmacologically active substances. There are about 25 000 species of basidiomycetes, of which about 500 are members of the Aphyllophorales, a polyphyletic group that contains the polypores. Many of these fungi have circumboreal distributions in North America, Europe, and Asia and broad distributions on all inhabited continents and Africa; only a small number of the most common species with the most obvious fruiting bodies (basidiocarps) have been evaluated for biological activity. An estimated 75% of polypore fungi that have been tested show strong antimicrobial activity, and these may constitute a good source for developing new antibiotics. Numerous compounds from these fungi also display antiviral, cytotoxic, and/or antineoplastic activities. Additional important components of this vast arsenal of compounds are polysaccharides derived from the fungal cell walls. These compounds have attracted significant attention in recent years because of their immunomodulatory activities, resulting in antitumor effects. These high **molecular weight** compounds, often called biological response modifiers (BRM), or immunopotentiators, prevent carcinogenesis, show direct anticancer effects, and prevent tumor metastasis. Some of the protein-bound polysaccharides from polypores and other basidiomycetes have found their way to the market in Japan as anticancer drugs. Finally, numerous compounds with cardiovascular, phytotoxic, immunomodulatory, analgesic, **antidiabetic**, antioxidant, insecticidal, and nematocidal activities, isolated from polypores, are also presented. In fact many of the fungi mentioned in this paper have long been used in herbal medicine, including polypores such as Ganoderma lucidum (Reishi or Ling Zhi), Laetiporus sulphureus (Chicken-of-the-Woods), Trametes versicolor (Yun Zhi), **Grifola** umbellata (Zhu Lin), Inonotus obliquus (Chaga), and Wolfiporia cocos (Hoelen).

CONTROLLED TERM: Adjuvants, Immunologic: CH, chemistry
Adjuvants, Immunologic: PD, pharmacology
Africa
Antibiotics, Antifungal: CH, chemistry
Antibiotics, Antifungal: PD, pharmacology
Antineoplastic Agents: CH, chemistry
Antineoplastic Agents: PD, pharmacology
Asia
*Biological Factors
Europe
Japan
Molecular Structure
North America
*Polyporales: CH, chemistry
CHEMICAL NAME: 0 (Adjuvants, Immunologic); 0 (Antibiotics, Antifungal); 0 (Antineoplastic Agents); 0 (Biological Factors)

L173 ANSWER 53 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2004344879 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15247477
TITLE: Derivatives of erythropoietin that are tissue protective but not erythropoietic.
AUTHOR: Leist Marcel; Ghezzi Pietro; Grasso Giovanni; Bianchi Roberto; Villa Pia; Fratelli Maddalena; Savino Costanza; Bianchi Marina; Nielsen Jacob; Gerwien Jens; Kallunki Pekka; Larsen Anna Kirstine; Helboe Lone; Christensen Soren; Pedersen Lars O; Nielsen Mette; Torup Lars; Sager Thomas; Sfacteria Alessandra; Erbayraktar Serhat; Erbayraktar Zubeyde; Gokmen Necati; Yilmaz Osman; Cerami-Hand Carla; Xie Qiao-Wen; Coleman Thomas; Cerami Anthony; Brines Michael
CORPORATE SOURCE: H. Lundbeck A/S, 2500 Valby, Denmark.
SOURCE: Science, (2004 Jul 9) Vol. 305, No. 5681, pp. 239-42. Journal code: 0404511. E-ISSN: 1095-9203.
COMMENT: Comment in: Science. 2004 Jul 9;305(5681):184-5. PubMed ID: 15247460
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200408
ENTRY DATE: Entered STN: 13 Jul 2004
Last Updated on STN: 3 Aug 2004
Entered Medline: 2 Aug 2004

ABSTRACT:
Erythropoietin (EPO) is both hematopoietic and tissue protective, putatively through interaction with different receptors. We generated receptor subtype-selective ligands allowing the separation of EPO's ***bioactivities*** at the cellular level and in animals. Carbamylated EPO (CEPO) or certain EPO mutants did not bind to the classical EPO receptor (EPOR) and did not show any hematopoietic activity in human cell signaling assays or upon chronic dosing in different animal species. Nevertheless, CEPO and various nonhematopoietic mutants were cytoprotective in vitro and conferred neuroprotection against stroke, spinal cord compression, diabetic neuropathy, and experimental autoimmune encephalomyelitis at a potency and efficacy comparable to EPO.

CONTROLLED TERM: Check Tags: Female
Animals
Apoptosis
Binding Sites

Cells, Cultured
Cerebrovascular Accident: DT, drug therapy
Diabetic Neuropathies: DT, drug therapy
Drug Design
Encephalomyelitis, Autoimmune, Experimental: DT, drug therapy
Erythropoiesis
Erythropoietin: AA, analogs & derivatives
Erythropoietin: CH, chemistry
Erythropoietin: ME, metabolism
Erythropoietin: PD, pharmacology
***Erythropoietin: TU, therapeutic use**
*Erythropoietin, Recombinant: AA, analogs & derivatives
Erythropoietin, Recombinant: GE, genetics
Erythropoietin, Recombinant: ME, metabolism
Erythropoietin, Recombinant: TU, therapeutic use
Hematocrit
Humans
Ligands
Mice
Mice, Inbred C3H
Mutagenesis
*Nervous System Diseases: DT, drug therapy
Neurons: ME, metabolism
Neuroprotective Agents: CH, chemistry
Neuroprotective Agents: ME, metabolism
Neuroprotective Agents: PD, pharmacology
*Neuroprotective Agents: TU, therapeutic use
Rats
Rats, Sprague-Dawley
Receptors, Erythropoietin: ME, metabolism
Research Support, Non-U.S. Gov't
Signal Transduction
Spinal Cord Compression: DT, drug therapy
Structure-Activity Relationship

CAS REGISTRY NO.: 11096-26-7 (Erythropoietin)
CHEMICAL NAME: 0 (Erythropoietin, Recombinant); 0 (Ligands); 0 (Neuroprotective Agents); 0 (Receptors, Erythropoietin); 0 (carbamylated erythropoietin)

L173 ANSWER 54 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2003525614 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14531775
TITLE: Treating azotemia-induced anemia with erythropoietin improves diabetic eye disease.
AUTHOR: Friedman Eli A; L'Esperance Francis A; Brown Clinton D; Berman David H
CORPORATE SOURCE: Department of Medicine, Downstate Medical Center, Brooklyn, New York 11203, USA.. elifriedmn@aol.com
SOURCE: Kidney international. Supplement, (2003 Nov) No. 87, pp. S57-63.
Journal code: 7508622. ISSN: 0098-6577.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 8 Nov 2003
Last Updated on STN: 26 Jun 2004

Entered Medline: 25 Jun 2004

ABSTRACT:
BACKGROUND: Coincidental with the pandemic growth of diabetes as the prime cause of end-stage renal disease (ESRD), blindness attributable to diabetic retinopathy has become a major concern for all those involved in the care of diabetic ESRD patients. Vision loss is linked to progression of proliferative retinopathy and macular edema. METHODS: **Extracted** from a study of azotemic anemic pre-ESRD patients treated with erythropoietin, a cohort of five diabetic subjects was reassessed in terms of stability of renal function, changes in blood rheology, and course of diabetic eye disease. RESULTS: All subjects reported subjective improvement in well-being, including enhanced effort tolerance following an increase in hematocrit from a baseline level of to 29.6 +/- 2.0% to a level of 39.5 +/- 2.4% after one year of treatment with erythropoietin (P = <0.0005). Neither hypertension nor deterioration of renal function was noted in any subject. Three patients with macular edema evinced substantive improvement-based stable vision and documented resolution noted in flourescein angiography. CONCLUSION: Erythropoietin treatment of anemic azotemic diabetic patients is well tolerated. In a small observational retrospective study of three patients with macular edema, retention of vision and resolution of exudates was noted.

CONTROLLED TERM: Check Tags: Female
*Anemia: DT, drug therapy
*Anemia: ET, etiology
Diabetes Mellitus, Type 1: CO, complications
Diabetes Mellitus, Type 2: CO, complications
Diabetic Nephropathies: CO, complications
***Diabetic Retinopathy: DT, drug therapy**
***Erythropoietin: TU, therapeutic use**
Humans
Middle Aged
Papilledema: DT, drug therapy
*Uremia: CO, complications

CAS REGISTRY NO.: 11096-26-7 (Erythropoietin)

L173 ANSWER 55 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2002260986 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12000704
TITLE: Sugar creates a sticky business: round up the usual suspects.
AUTHOR: Rosenbaum James T
CORPORATE SOURCE: Casey Eye Institute, Oregon Health & Science University, Portland, Oregon 97201, USA.. rosenbaj@ohsu.edu
CONTRACT NUMBER: EY06484 (NEI)
SOURCE: The American journal of pathology, (2002 May) Vol. 160, No. 5, pp. 1547-50.
Journal code: 0370502. ISSN: 0002-9440.
COMMENT: Comment on: Am J Pathol. 2002 May;160(5):1683-93. PubMed ID: 12000720
PUB. COUNTRY: United States
DOCUMENT TYPE: Commentary
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200206
ENTRY DATE: Entered STN: 10 May 2002
Last Updated on STN: 5 Jun 2002
Entered Medline: 4 Jun 2002
CONTROLLED TERM: Angiopoietin-1
Animals
Blood-Retinal Barrier: DE, drug effects

***Diabetic Retinopathy: DT, drug therapy**
Diabetic Retinopathy: ET, etiology
Endothelial Growth Factors: GE, genetics
Endothelial Growth Factors: ME, metabolism
Hyperglycemia: CI, chemically induced
*Hyperglycemia: CO, complications
Intercellular Adhesion Molecule-1: GE, genetics
Intercellular Adhesion Molecule-1: ME, metabolism
Lymphokines: GE, genetics
Lymphokines: ME, metabolism
Membrane Glycoproteins: PD, pharmacology
*Membrane Glycoproteins: TU, therapeutic use
Mitogen-Activated Protein Kinases: DE, drug effects
Mitogen-Activated Protein Kinases: ME, metabolism
*Protein-Serine-Threonine Kinases
Proto-Oncogene Proteins: DE, drug effects
Proto-Oncogene Proteins: ME, metabolism
Proto-Oncogene Proteins c-akt
RNA, Messenger: DE, drug effects
RNA, Messenger: GE, genetics
RNA, Messenger: ME, metabolism
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Retina: DE, drug effects
Retina: ME, metabolism
Retina: PA, pathology
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors

CAS REGISTRY NO.: 126547-89-5 (Intercellular Adhesion Molecule-1)
CHEMICAL NAME: 0 (Angiopoietin-1); 0 (Endothelial Growth Factors); 0 (Lymphokines); 0 (Membrane Glycoproteins); 0 (Proto-Oncogene Proteins); 0 (RNA, Messenger); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors); EC 2.7.1.37 (Mitogen-Activated Protein Kinases); EC 2.7.1.37 (Protein-Serine-Threonine Kinases); EC 2.7.1.37 (Proto-Oncogene Proteins c-akt)

L173 ANSWER 56 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2002278024 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12000720
TITLE: Suppression of diabetic retinopathy with angiopoietin-1.
AUTHOR: Joussen Antonia M; Poulaki Vassiliki; Tsujikawa Akitaka; Qin Wenying; Qaum Tamim; Xu Qingwen; Moromizato Yasufumi; Bursell Sven-Erik; Wiegand Stanley J; Rudge John; Ioffe Ella; Yancopoulos George D; Adamis Anthony P
CORPORATE SOURCE: Laboratory for Surgical Research, Children's Hospital, Harvard Medical School, Boston, Massachusetts, USA.
CONTRACT NUMBER: EY11627 (NEI)
EY12611 (NEI)
SOURCE: The American journal of pathology, (2002 May) Vol. 160, No. 5, pp. 1683-93.
Journal code: 0370502. ISSN: 0002-9440.
COMMENT: Comment in: Am J Pathol. 2002 May;160(5):1547-50. PubMed ID: 12000704
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200206
ENTRY DATE: Entered STN: 22 May 2002

Last Updated on STN: 5 Jun 2002
Entered Medline: 4 Jun 2002

ABSTRACT:
Diabetic retinopathy remains a leading cause of irreversible blindness. A critical early pathology in the disease is the adhesion of leukocytes to the retinal vasculature, a process that occurs, in part, via intercellular adhesion molecule-1. Once leukocyte adhesion occurs, endothelial cell injury ensues, as does blood-retinal barrier breakdown. Here we show that angiopoietin-1 can prevent and reverse these diabetic retinal vascular changes in both new and established diabetes. Angiopoietin-1, when given intravitreally to newly diabetic rats, normalized retinal vascular endothelial growth factor (VEGF) and intercellular adhesion molecule-1 mRNA and protein levels, leading to reductions in leukocyte adhesion, endothelial cell injury, and blood-retinal barrier breakdown. When an adenovirus coding for angiopoietin-1 was given systemically to mice with established diabetes, it similarly inhibited leukocyte adhesion and endothelial cell injury and blood-retinal barrier breakdown. These changes coincided with reductions in retinal eNOS, nitric oxide, Akt (protein kinase B), and MAP kinase activity, known mediators of VEGF ***bioactivity*** and leukocyte adhesion. When endogenous VEGF ***bioactivity*** was inhibited with a soluble Flt-1/Fc chimera, retinal Akt kinase activity was significantly reduced in vivo. Taken together, these data document new vascular and anti-inflammatory **bioactivities** for angiopoietin-1 and identify it as the first naturally occurring protein that directly protects the retinal vasculature in diabetes.

CONTROLLED TERM: Check Tags: Male
Angiopoietin-1
Animals
Blood-Retinal Barrier: DE, drug effects
Cattle
Cell Adhesion: DE, drug effects
***Diabetic Retinopathy: DT, drug therapy**
Diabetic Retinopathy: ME, metabolism
Diabetic Retinopathy: PA, pathology
Dose-Response Relationship, Drug
Endothelial Growth Factors: GE, genetics
Endothelial Growth Factors: ME, metabolism
Endothelium, Vascular: DE, drug effects
Endothelium, Vascular: PA, pathology
Enzyme Activation: DE, drug effects
Intercellular Adhesion Molecule-1: GE, genetics
Intercellular Adhesion Molecule-1: ME, metabolism
Leukocytes: CY, cytology
Leukocytes: ME, metabolism
Lymphokines: GE, genetics
Lymphokines: ME, metabolism
Membrane Glycoproteins: PD, pharmacology
***Membrane Glycoproteins: TU, therapeutic use**
Mice
Mice, Inbred C57BL
Mitogen-Activated Protein Kinases: DE, drug effects
Mitogen-Activated Protein Kinases: ME, metabolism
Nitric Oxide: ME, metabolism
Nitric Oxide Synthase: BI, biosynthesis
Nitric Oxide Synthase: DE, drug effects
Nitric Oxide Synthase Type II
Nitric Oxide Synthase Type III
*Protein-Serine-Threonine Kinases
Proto-Oncogene Proteins: ME, metabolism
Proto-Oncogene Proteins c-akt
RNA, Messenger: DE, drug effects

RNA, Messenger: GE, genetics
RNA, Messenger: ME, metabolism
Rats
Rats, Long-Evans
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Retina: DE, drug effects
Retina: ME, metabolism
Retina: PA, pathology
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors

CAS REGISTRY NO.: 10102-43-9 (Nitric Oxide); 126547-89-5 (Intercellular Adhesion Molecule-1)

CHEMICAL NAME: 0 (Agpt protein, mouse); 0 (Agpt protein, rat); 0 (Angiopoietin-1); 0 (Endothelial Growth Factors); 0 (Lymphokines); 0 (Membrane Glycoproteins); 0 (Proto-Oncogene Proteins); 0 (RNA, Messenger); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors); EC 1.14.13.39 (Nitric Oxide Synthase); EC 1.14.13.39 (Nitric Oxide Synthase Type II); EC 1.14.13.39 (Nitric Oxide Synthase Type III); EC 1.14.13.39 (Nos3 protein, mouse); EC 1.14.13.39 (Nos3 protein, rat); EC 2.7.1.37 (Akt1 protein, rat); EC 2.7.1.37 (Mitogen-Activated Protein Kinases); EC 2.7.1.37 (Protein-Serine-Threonine Kinases); EC 2.7.1.37 (Proto-Oncogene Proteins c-akt)

L173 ANSWER 57 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2002495903 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12352871
TITLE: New drugs 2002, part III.
AUTHOR: Hussar Daniel A
CORPORATE SOURCE: Philadelphia College of Pharmacy, University of the Sciences, PA, USA.
SOURCE: Nursing, (2002 Jul) Vol. 32, No. 7, pp. 55-62; quiz 62-4. Journal code: 7600137. ISSN: 0360-4039.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Nursing Journals
ENTRY MONTH: 200211
ENTRY DATE: Entered STN: 3 Oct 2002
Last Updated on STN: 13 Dec 2002
Entered Medline: 6 Nov 2002

CONTROLLED TERM: *Adenine: AA, analogs & derivatives
Adenine: PD, pharmacology
Adenine: TU, therapeutic use
Anti-Bacterial Agents: PD, pharmacology
Anti-Bacterial Agents: TU, therapeutic use
Anti-HIV Agents: PD, pharmacology
Anti-HIV Agents: TU, therapeutic use
Anti-Infective Agents: PD, pharmacology
Anti-Infective Agents: TU, therapeutic use
Antihypertensive Agents: PD, pharmacology
Antihypertensive Agents: TU, therapeutic use
Antirheumatic Agents: PD, pharmacology
Antirheumatic Agents: TU, therapeutic use
Bone Resorption: DT, drug therapy
Cephalosporins: PD, pharmacology
Cephalosporins: TU, therapeutic use

Diphosphonates: PD, pharmacology
Diphosphonates: TU, therapeutic use
Drug Approval
Drug Therapy: AE, adverse effects
Drug Therapy: NU, nursing
*Drug Therapy: ST, standards
*Erythropoietin: AA, analogs & derivatives
Erythropoietin: PD, pharmacology
Erythropoietin: TU, therapeutic use
Heart Failure, Congestive: DT, drug therapy
Humans
Hypoglycemic Agents: PD, pharmacology
Hypoglycemic Agents: TU, therapeutic use
Imidazoles: PD, pharmacology
Imidazoles: TU, therapeutic use
Indoles: PD, pharmacology
Indoles: TU, therapeutic use
*Insulin: AA, analogs & derivatives
Insulin: PD, pharmacology
Insulin: TU, therapeutic use
Natriuretic Agents: PD, pharmacology
Natriuretic Agents: TU, therapeutic use
Natriuretic Peptide, Brain
Organophosphorus Compounds: PD, pharmacology
Organophosphorus Compounds: TU, therapeutic use
*Phosphonic Acids
Protein C: PD, pharmacology
Protein C: TU, therapeutic use
Recombinant Proteins: PD, pharmacology
Recombinant Proteins: TU, therapeutic use
Serotonin Agonists: PD, pharmacology
Serotonin Agonists: TU, therapeutic use
Sialoglycoproteins: PD, pharmacology
Sialoglycoproteins: TU, therapeutic use
Sulfonamides: PD, pharmacology
Sulfonamides: TU, therapeutic use
Tryptamines

CAS REGISTRY NO.: 11061-68-0 (Insulin); 11096-26-7 (Erythropoietin); 114471-18-0 (Natriuretic Peptide, Brain); 117467-28-4 (cefditoren pivoxil); 118072-93-8 (zoledronic acid); 147536-97-8 (bosentan); 154323-57-6 (almotriptan); 209810-58-2 (darbepoetin alfa); 73-24-5 (Adenine)

CHEMICAL NAME: 0 (Anti-Bacterial Agents); 0 (Anti-HIV Agents); 0 (Anti-Infective Agents); 0 (Antihypertensive Agents); 0 (Antirheumatic Agents); 0 (Cephalosporins); 0 (Diphosphonates); 0 (Hypoglycemic Agents); 0 (Imidazoles); 0 (Indoles); 0 (Natriuretic Agents); 0 (Organophosphorus Compounds); 0 (Phosphonic Acids); 0 (Protein C); 0 (Recombinant Proteins); 0 (Serotonin Agonists); 0 (Sialoglycoproteins); 0 (Sulfonamides); 0 (Tryptamines); 0 (drotrecogin alfa activated); 0 (insulin, Asp(B28)-); 0 (interleukin 1 receptor antagonist protein); 0 (tenofovir disoproxil)

L173 ANSWER 58 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2002169689 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11903406
TITLE: A possible hypoglycaemic effect of **maitake** mushroom on Type 2 **diabetic** patients.
AUTHOR: Konno S; Tortorelis D G; Fullerton S A; Samadi A A;

Hettiarachchi J; Tazaki H
SOURCE: Diabetic medicine : a journal of the British Diabetic Association, (2001 Dec) Vol. 18, No. 12, pp. 1010. Journal code: 8500858. ISSN: 0742-3071.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (CASE REPORTS)
Letter
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200206
ENTRY DATE: Entered STN: 21 Mar 2002
Last Updated on STN: 15 Jun 2002
Entered Medline: 14 Jun 2002
CONTROLLED TERM: Check Tags: Male
Adult
*Agaricales
Blood Glucose: ME, metabolism
***Diabetes Mellitus, Type 2: BL, blood**
Glyburide: TU, therapeutic use
Humans
*Hypoglycemia: ET, etiology
Hypoglycemic Agents: TU, therapeutic use
CAS REGISTRY NO.: 10238-21-8 (Glyburide)
CHEMICAL NAME: 0 (Blood Glucose); 0 (Hypoglycemic Agents)

L173 ANSWER 59 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2001569596 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11676011
TITLE: Relationship between solubility of grifolan, a fungal 1,3-beta-D-glucan, and production of tumor necrosis factor by macrophages in vitro.
AUTHOR: Ishibashi K; Miura N N; Adachi Y; Ohno N; Yadomae T
CORPORATE SOURCE: Laboratory for Immunopharmacology for Microbial Products, School of Pharmacy, Tokyo University of Pharmacy and Life Science, Hachioji, Japan.
SOURCE: Bioscience, biotechnology, and biochemistry, (2001 Sep) Vol. 65, No. 9, pp. 1993-2000. Journal code: 9205717. ISSN: 0916-8451.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 29 Oct 2001
Last Updated on STN: 7 May 2002
Entered Medline: 6 May 2002
ABSTRACT:
Grifolan, GRN, is a fungal antitumor beta-glucan isolated from **Grifola** frondosa. Various studies suggested that the underlying mechanism of the antitumor activity of GRN is strongly related to immune modulation. In the previous publication (Adachi et al., 1994; Okazaki et al., 1995), we have shown that GRN activates macrophages to produce tumor necrosis factor (TNF) in vitro. In this study, the structural unit essential to produce TNF was examined by chemical modifications of GRN. GRN suspended in distilled water was treated at 150 degrees C for up to 3 h. Addition of the resulting turbid solution to the RAW 264.7 macrophage-like cell line produced TNF, and the relative activity was diminished in relation to the heat treatment period. The fractions with a heating period longer than 15 min did not show any activity. After centrifugation of the resulting solution, significant activity was shown by precipitate fractions, suggesting that the insoluble form of GRN is important

for TNF production. Interestingly, the precipitate fraction obtained from 9 min of treatment also had significant activity. In addition, admixing the soluble fraction with the particles significantly inhibited the TNF production. In contrast to these observations, the high-molecular-mass subfraction of the soluble fraction prepared by ultrafiltration produced significant amounts of TNF. Similar phenomena were shown with sodium hydroxide treatment and dimethylsulfoxide treatment. These facts strongly suggested that insoluble as well as a high molecular mass soluble form of GRN are required for TNF production by macrophages.

CONTROLLED TERM: Animals
*Antibiotics, Antineoplastic: CH, chemistry
*Antibiotics, Antineoplastic: PD, pharmacology
Biochemistry: MT, methods
Cell Line
*Glucans: CH, chemistry
*Glucans: PD, pharmacology
Heat
Macrophages: DE, drug effects
*Macrophages: ME, metabolism
Mice
Molecular Weight
Research Support, Non-U.S. Gov't
Solubility
***Tumor Necrosis Factor-alpha: ME, metabolism**
*beta-Glucans

CAS REGISTRY NO.: 104074-36-4 (grifolan)

CHEMICAL NAME: 0 (Antibiotics, Antineoplastic); 0 (Glucans); 0 (Tumor Necrosis Factor-alpha); 0 (beta-Glucans)

L173 ANSWER 60 OF 99 MEDLINE on STN

ACCESSION NUMBER: 2001542541 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11589426

TITLE: TX14(A), a prosaposin-derived peptide, reverses established nerve disorders in streptozotocin-diabetic rats and prevents them in galactose-fed rats.

AUTHOR: Mizisin A P; Steinhardt R C; O'Brien J S; Calcutt N A

CORPORATE SOURCE: Department of Pathology, School of Medicine, University of California, San Diego, La Jolla, 92093-0612, USA.

CONTRACT NUMBER: NS38855 (NINDS)

SOURCE: Journal of neuropathology and experimental neurology, (2001 Oct) Vol. 60, No. 10, pp. 953-60.
Journal code: 2985192R. ISSN: 0022-3069.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200110

ENTRY DATE: Entered STN: 9 Oct 2001
Last Updated on STN: 29 Oct 2001
Entered Medline: 25 Oct 2001

ABSTRACT:
Recently, TX14(A), a prosaposin-derived neurotrophic peptide, was shown to prevent both large and small fiber deficits in streptozotocin diabetes. Here, the efficacy of TX14(A) in reversing established nerve conduction disorders in streptozotocin diabetes, a model of insulin deficiency, and preventing them in galactose feeding, an insulin-replete model of polyol pathway flux, was investigated. Following streptozotocin injection (50 mg/kg ip), TX14(A) treatment (1 mg/kg ip thrice weekly) was initiated in half of the animals. After 8 wk, treatment was begun in half of the untreated animals and discontinued in half of the treated animals, and the experiment continued for 6

wk. TX14(A) reversed established motor and sensory nerve conduction deficits in streptozotocin-diabetic rats and the impact of previous treatment was still evident 3 wk after withdrawal. With the onset of 40% galactose feeding, the same dose of TX14(A) was given to half of the control and half of the galactose-fed animals for 16 wk. TX14(A) was without effect in control animals but it attenuated motor and sensory nerve conduction deficits in galactose-fed rats, an effect associated with amelioration of axonal dwindling in the sciatic nerve. These observations extend the therapeutic utility of TX14(A) and highlight its potential in treating established diabetic neuropathy.

CONTROLLED TERM: Check Tags: Female
Animals
Axons: DE, drug effects
Axons: PA, pathology
Blood Glucose: PH, physiology
Body Weight: DE, drug effects
Diabetes Mellitus, Experimental: CO, complications
***Diabetes Mellitus, Experimental: DT, drug therapy**
Diabetic Neuropathies: DT, drug therapy
*Diabetic Neuropathies: PC, prevention & control
Diet
*Galactose: AD, administration & dosage
*Glycoproteins
Glycoproteins: PD, pharmacology
Glycoproteins: TU, therapeutic use
Injections, Intraperitoneal
Motor Neurons: DE, drug effects
Motor Neurons: PA, pathology
*Nerve Growth Factors: PD, pharmacology
Nerve Growth Factors: TU, therapeutic use
Neural Conduction: DE, drug effects
Neurons, Afferent: DE, drug effects
Neurons, Afferent: PA, pathology
*Peptides: PD, pharmacology
Peptides: TU, therapeutic use
Rats
Rats, Sprague-Dawley
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Saposins
Streptozocin: AD, administration & dosage

CAS REGISTRY NO.: 18883-66-4 (Streptozocin); 26566-61-0 (Galactose)

CHEMICAL NAME: 0 (Blood Glucose); 0 (Glycoproteins); 0 (Nerve Growth Factors); 0 (Peptides); 0 (Psap protein, rat); 0 (Saposins); 0 (prosaptide)

L173 ANSWER 61 OF 99 MEDLINE on STN

ACCESSION NUMBER: 2001495043 MEDLINE

DOCUMENT NUMBER: PubMed ID: 11520942

TITLE: Cholesterol-lowering effects of **maitake** (**Grifola** frondosa) fiber, shiitake (Lentinus edodes) fiber, and enokitake (Flammulina velutipes) fiber in rats.

AUTHOR: Fukushima M; Ohashi T; Fujiwara Y; Sonoyama K; Nakano M

CORPORATE SOURCE: Department of Bioresource Science, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido 080-8555, Japan.. fukushim@obihiro.ac.jp

SOURCE: Experimental biology and medicine (Maywood, N.J.), (2001 Sep) Vol. 226, No. 8, pp. 758-65.
Journal code: 100973463. ISSN: 1535-3702.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 10 Sep 2001
Last Updated on STN: 1 Oct 2001
Entered Medline: 27 Sep 2001

ABSTRACT:
The effects of mushroom fibers on serum cholesterol and hepatic low-density lipoprotein (LDL) receptor mRNA in rats were investigated. Rats were fed a cholesterol-free diet with 50 g/kg cellulose powder (CP), 50 g/kg ***maitake*** (**Grifola** frondosa) fiber (MAF), 50 g/kg shiitake (Lentinus edodes) fiber (SF), or 50 g/kg enokitake (Flammulina velutipes) fiber (EF) for 4 weeks. There were no significant differences in the **body** ***weight*** , food intake, liver weight, cecum weight, and cecum pH among the groups. Cecal acetic acid, butyric acid, and total short-chain fatty acid (SCFA) concentrations in the SF and EF groups were significantly higher than those in the other groups. The serum total cholesterol concentration in the CP group was significantly higher than that in the MAF and EF groups. The very LDL (VLDL) + intermediate-density lipoprotein (IDL) + LDL-cholesterol concentration in the CP group was significantly higher than that in the MAF, SF, and EF groups, whereas the high-density lipoprotein (HDL)-cholesterol concentration in the EF group was significantly lower than that in the other groups at the end of the 4-week feeding period. The hepatic LDL receptor mRNA level in the EF group was significantly higher than that in the CP group. The fecal cholesterol excretion in the MAF, SF, and EF groups was significantly higher than that in the CP group. The results of this study demonstrate that MAF and EF lowered the serum total cholesterol level by enhancement of fecal cholesterol excretion, and in particular, by enhancement of hepatic LDL receptor mRNA in EF group.

CONTROLLED TERM: Check Tags: Male
Acetic Acid: ME, metabolism
*Agaricales: CH, chemistry
Animals
Blotting, Southern
Body Weight: DE, drug effects
Butyric Acids: ME, metabolism
Cecum: ME, metabolism
*Cholesterol: ME, metabolism
Cholesterol 7-alpha-Hydroxylase: ME, metabolism
*Dietary Fiber: TU, therapeutic use
Fatty Acids, Volatile: ME, metabolism
Hydrogen-Ion Concentration
Hydroxymethylglutaryl CoA Reductases: ME, metabolism
*Hypercholesterolemia: DT, drug therapy
*Lentinula: CH, chemistry
Liver: EN, enzymology
Organ Size: DE, drug effects
*Plant Extracts: TU, therapeutic use
RNA: ME, metabolism
RNA, Messenger: ME, metabolism
Rats
Rats, Inbred F344
Receptors, LDL: ME, metabolism
Reverse Transcriptase Polymerase Chain Reaction
*Shiitake Mushrooms: TU, therapeutic use
Time Factors

CAS REGISTRY NO.: 57-88-5 (Cholesterol); 63231-63-0 (RNA); 64-19-7 (Acetic Acid)

CHEMICAL NAME: 0 (Butyric Acids); 0 (Fatty Acids, Volatile); 0 (Plant Extracts); 0 (RNA, Messenger); 0 (Receptors, LDL); EC

1.1.1.- (Hydroxymethylglutaryl CoA Reductases); EC 1.14.13.17 (Cholesterol 7-alpha-Hydroxylase)

L173 ANSWER 62 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2001519600 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11566496
TITLE: Effects of **maitake** (**Grifola** frondosa) D-Fraction on the carcinoma angiogenesis.
AUTHOR: Matsui K; Kodama N; Nanba H
CORPORATE SOURCE: Department of Microbial chemistry, Kobe Pharmaceutical University, 19-1, Motoyama-kitamachi 4-chome, Higashinada-ku, 658-8558, Kobe, Japan.
SOURCE: Cancer letters, (2001 Oct 30) Vol. 172, No. 2, pp. 193-8. Journal code: 7600053. ISSN: 0304-3835.
PUB. COUNTRY: Ireland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200111
ENTRY DATE: Entered STN: 24 Sep 2001
Last Updated on STN: 5 Nov 2001
Entered Medline: 1 Nov 2001

ABSTRACT:
We have reported that D-Fraction **extracted** from **maitake** (***Grifola*** frondosa), activates immune competent cells, and indicates anti-tumor activities. The D-Fraction was observed to induce angiogenesis in vivo and to enhance the proliferation capability and migration capability of human vascular endothelial cell in vitro. The D-Fraction also increased plasma vascular endothelial growth factor (VEGF) concentration significantly. Also VEGF and TNF-alpha production by the activated peritoneal macrophages were enhanced. These results suggest that the anti-tumor activity of the D-Fraction is not only associated with the activation of the immuno-competent cells but also possibly related to the carcinoma angiogenesis induction.

CONTROLLED TERM: Check Tags: Male
Animals
*Antineoplastic Agents: PD, pharmacology
Endothelial Growth Factors: BI, biosynthesis
Endothelial Growth Factors: BL, blood
Endothelium, Vascular: CY, cytology
Endothelium, Vascular: DE, drug effects
*Fungal Proteins: PD, pharmacology
***Glycoproteins: PD, pharmacology**
Humans
Lymphokines: BI, biosynthesis
Lymphokines: BL, blood
Mice
Mice, Inbred C3H
*Neoplasms, Experimental: BS, blood supply
Neoplasms, Experimental: DT, drug therapy
*Neovascularization, Pathologic: CI, chemically induced
*Polyporaceae: CH, chemistry
Tumor Necrosis Factor-alpha: BI, biosynthesis
Vascular Endothelial Growth Factor A
Vascular Endothelial Growth Factors

CHEMICAL NAME: 0 (Antineoplastic Agents); 0 (Endothelial Growth Factors); 0 (Fungal Proteins); 0 (**Glycoproteins**); 0 (Lymphokines); 0 (Tumor Necrosis Factor-alpha); 0 (Vascular Endothelial Growth Factor A); 0 (Vascular Endothelial Growth Factors)

L173 ANSWER 63 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2002009942 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11349892
TITLE: **Maitake** (**Grifola** frondosa) improve glucose tolerance of experimental **diabetic** rats.
AUTHOR: Horio H; Ohtsuru M
CORPORATE SOURCE: Department of Food Science and Nutrition, Faculty of Home Economics, Nishikyushu University, Saga, Japan.
SOURCE: Journal of nutritional science and vitaminology, (2001 Feb) Vol. 47, No. 1, pp. 57-63.
Journal code: 0402640. ISSN: 0301-4800.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 21 Jan 2002
Last Updated on STN: 5 Feb 2002
Entered Medline: 4 Feb 2002

ABSTRACT:
We have previously reported that rats with **diabetes** induced by injecting streptozotocin into neonates showed remarkably lower blood glucose, urine volume, and glucosuria after administration of **Maitake** (***Grifola*** frondosa). In the present study, we investigated the effects of **Maitake** on insulin concentration, organ weight, serum composition, and islets of Langerhans in streptozotocin-induced **diabetic** rats using the same method. The **diabetic** rats were produced by injecting 80 mg/kg B.W. streptozotocin into 2-d-old neonates. From the age of 9 wk, the rats were given experimental diets for 100 d. The **diabetes** and control groups were given either diets containing 20% **Maitake** (DM and CM groups) or control diets (D and C groups). During administration of the experimental diets, we measured **body weight**, food intake, amount of feces, and serum insulin concentration at glucose loading. The glucose tolerance test was performed at the 10th week after the start of the experimental diets. The D group had an initial fasting blood glucose of 225+/-49 mg/dL, and a maximum blood glucose of 419+/-55 mg/dL at 60 min. In the DM group, however, the initial fasting blood glucose was 170+/-23 mg/dL, and the maximum blood glucose was 250+/-41 mg/dL at 15 min. Both values were markedly lower than those in the D group ($p<0.05$). The insulin concentration at 15 min. after glucose loading in the DM group was 41+/-16 microU/mL, which was significantly higher than that in the D group (15+/-7 microU/mL) ($p<0.05$). After the 100-d experimental period, blood samples were collected. The fructosamine level was significantly lower in the DM group (152+/-21 mmol/L) than in the D group (185+/-13 mmol/L). The concentration of 1.5-A.G. (1.5-anhydro glucitol) was significantly higher in the DM group (9.33+/-2.42 microg/mL) than in the D group (1.33+/-0.52 microg/mL). Observation of insulin antibody stain in the Langerhans cells of the pancreas using ABC method showed a decrease insulin antibody stain in the D group. The cells of the DM group were stained more darkly than those of the D group. From these results, we postulated that the bioactive substances present in **Maitake** can ameliorate the symptoms of **diabetes.**

CONTROLLED TERM: Check Tags: Female; Male
Animals
Area Under Curve
*Blood Glucose: ME, metabolism
Diabetes Mellitus, Experimental: CI, chemically induced
***Diabetes Mellitus, Experimental: DT, drug therapy**
Feces: CH, chemistry
*Glucans: PD, pharmacology

Glucans: TU, therapeutic use
Glucose Tolerance Test
Immunohistochemistry
*Insulin: BL, blood
Insulin: SE, secretion
*Islets of Langerhans: DE, drug effects
Islets of Langerhans: SE, secretion
Organ Size: DE, drug effects
*Polyporaceae: CH, chemistry
Rats
CAS REGISTRY NO.: 11061-68-0 (Insulin)
CHEMICAL NAME: 0 (Blood Glucose); 0 (Glucans)

L173 ANSWER 64 OF 99 MEDLINE on STN
ACCESSION NUMBER: 2002205267 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11207456
TITLE: **Maitake** extracts and their therapeutic potential.
AUTHOR: Mayell Mmmayell@mediaone.net
SOURCE: Alternative medicine review : a journal of clinical therapeutic, (2001 Feb) Vol. 6, No. 1, pp. 48-60. Ref: 44
Journal code: 9705340. ISSN: 1089-5159.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Consumer Health
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 10 Apr 2002
Last Updated on STN: 5 May 2002
Entered Medline: 3 May 2002

ABSTRACT:
Maitake (**Grifola** frondosa) is the Japanese name for an edible fungus with a large fruiting body characterized by overlapping caps. It is a premier culinary as well as medicinal mushroom. **Maitake** is increasingly being recognized as a potent source of polysaccharide compounds with dramatic health-promoting potential. The most recent development is the MD-fraction, a proprietary **maitake** extract its Japanese inventors consider to be a notable advance upon the preceding D-fraction. The D-fraction, the MD-fraction, and other extracts, often in combination with whole **maitake** powder, have shown particular promise as immunomodulating agents, and as an adjunct to cancer and HIV therapy. They may also provide some benefit in the treatment of **hyperlipidemia**, ***hypertension*** , and hepatitis.

CONTROLLED TERM: Adjuvants, Immunologic: PD, pharmacology
Adjuvants, Immunologic: TU, therapeutic use
Administration, Oral
Animals
*Anti-HIV Agents
Anti-HIV Agents: PD, pharmacology
Anti-HIV Agents: TU, therapeutic use
*Antibiotics, Antineoplastic
Antibiotics, Antineoplastic: PD, pharmacology
Antibiotics, Antineoplastic: TU, therapeutic use
*Antilipemic Agents
Antilipemic Agents: PD, pharmacology
Antilipemic Agents: TU, therapeutic use
Body Weight: DE, drug effects
Drug Administration Schedule
*Glucans
Glucans: PD, pharmacology

Glucans: TU, therapeutic use
*HIV Infections: DT, drug therapy
Humans
Hyperlipidemia: DT, drug therapy
Hypertension: DT, drug therapy
Liver Diseases: DT, drug therapy
*Neoplasms: DT, drug therapy
Polyporaceae
*beta-Glucans
CAS REGISTRY NO.: 104074-36-4 (grifolan)
CHEMICAL NAME: 0 (Adjuvants, Immunologic); 0 (Anti-HIV Agents); 0 (Antibiotics, Antineoplastic); 0 (Antilipemic Agents); 0 (Glucans); 0 (beta-Glucans)

L173 ANSWER 65 OF 99 MEDLINE on STN
ACCESSION NUMBER: 97399293 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9255420
TITLE: Anti-hyperliposis effect of **maitake** fruit body (**Grifola** frondosa). I.
AUTHOR: Kubo K; Nanba H
CORPORATE SOURCE: Department of Microbial Chemistry, Kobe Pharmaceutical University, Japan.
SOURCE: Biological & pharmaceutical bulletin, (1997 Jul) Vol. 20, No. 7, pp. 781-5.
Journal code: 9311984. ISSN: 0918-6158.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199710
ENTRY DATE: Entered STN: 21 Oct 1997
Last Updated on STN: 29 Jan 1999
Entered Medline: 9 Oct 1997

ABSTRACT:
Experimental rat models (5-week-old Sprague-Dawley rats) with hyperlipemia were prepared by feeding high-cholesterol feed containing sodium cholate and casein as a protein source. Dried **maitake** (**Grifola** frondosa) powder was mixed with the basic high-cholesterol feed and the serum lipids were periodically measured. Values of cholesterol, triglyceride and phospholipid in serum of rats in the **maitake**-feed group were suppressed by 0.3-0.8 times those in animals fed the basic feed, the latter values being close to those in rats given normal feed. The value of high density lipoprotein (HDL)-cholesterol in serum which is generally reduced by the ingestion of high-cholesterol feed remained the level it was at the beginning of the experiment. Weights of extirpated liver and epididymal fat-pads were significantly less (0.6-0.7 times) than those in the basic feed group, indicating that **maitake** inhibits lipid accumulation in the body. Liver lipids were also measured and the values were found to be decreased by ***maitake*** administration as true of serum lipid, suggesting ***maitake*** has an anti-liver lipid activity. Measurement of the amount of total cholesterol and bile acid in feces showed, the **ratio** of cholesterol-excretion had increased 1.8 times and bile acid-excretion 3 fold by ***maitake*** treatment. From these results, it is believed that ***maitake*** helps to improve the lipid metabolism as it inhibits both liver lipid and serum lipid which are increased by the ingestion of high-fat feed.
CONTROLLED TERM: Check Tags: Male
Animals
*Basidiomycota: CH, chemistry
Bile Acids and Salts: ME, metabolism
Body Weight

Cholesterol: ME, metabolism
Feces: CH, chemistry
***Hyperlipidemia: TH, therapy**
Lipid Metabolism
Lipoproteins, HDL Cholesterol: BL, blood
Liver: ME, metabolism
Organ Size
Rats
Rats, Sprague-Dawley
CAS REGISTRY NO.: 57-88-5 (Cholesterol)
CHEMICAL NAME: 0 (Bile Acids and Salts); 0 (Lipoproteins, HDL Cholesterol)

L173 ANSWER 66 OF 99 MEDLINE on STN
ACCESSION NUMBER: 96254085 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8664344
TITLE: Angiotensin II induces TIMP-1 production in rat heart endothelial cells.
AUTHOR: Chua C C; Hamdy R C; Chua B H
CORPORATE SOURCE: Division of Geriatric Medicine, East Tennessee State University, Johnson City 37614-0429, USA.
CONTRACT NUMBER: HL 37011 (NHLBI)
SOURCE: Biochimica et biophysica acta, (1996 May 28) Vol. 1311, No. 3, pp. 175-80.
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199608
ENTRY DATE: Entered STN: 19 Aug 1996
Last Updated on STN: 6 Feb 1998
Entered Medline: 8 Aug 1996

ABSTRACT:
Angiotensin II (AII) was found to upregulate tissue inhibitor of metalloproteineses-1 (TIMP-1) gene expression in rat heart endothelial cells in a dose and time-dependent manner. The maximal stimulation of TIMP-1 mRNA was achieved by 2 h after the addition of AII. This effect was blocked by losartan, an AT1 receptor antagonist and by calphostin C, a protein kinase C inhibitor. Addition of cycloheximide superinduced and actinomycin D abolished the induction. These results suggest that AII stimulates TIMP-1 production by a protein kinase C dependent pathway which is dependent upon de novo RNA synthesis. Immunoprecipitation experiment showed an enhanced band of 28 kDa from the conditioned medium of AII-treated cultures. Immunoblot analysis revealed that TIMP-1 was detectable in the conditioned medium 4 h after AII stimulation. Since endothelial cells line the blood vessels and sense the rise in AII associated with hypertension, the TIMP-1 released by these cells may provide an initial trigger leading to cardiac fibrosis in angiotensin-renin dependent hypertension.

CONTROLLED TERM: *Angiotensin II: PD, pharmacology
Animals
Antihypertensive Agents: PD, pharmacology
Biphenyl Compounds: PD, pharmacology
Cells, Cultured
Culture Media, Conditioned
Endothelium: ME, metabolism
Enzyme Inhibitors: PD, pharmacology
*Glycoproteins: BI, biosynthesis
Glycoproteins: PD, pharmacology
Imidazoles: PD, pharmacology
Losartan

*Myocardium: ME, metabolism
*Protease Inhibitors: ME, metabolism
Protease Inhibitors: PD, pharmacology
Protein Kinase C: AI, antagonists & inhibitors
Protein Synthesis Inhibitors: PD, pharmacology
Pyridines: PD, pharmacology
RNA, Messenger: ME, metabolism
Rats
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Tetrazoles: PD, pharmacology
Tissue Inhibitor of Metalloproteinases
Up-Regulation
Vasoconstrictor Agents: PD, pharmacology

CAS REGISTRY NO.: 11128-99-7 (Angiotensin II); 114798-26-4 (Losartan); 130663-39-7 (PD 123319)

CHEMICAL NAME: 0 (Antihypertensive Agents); 0 (Biphenyl Compounds); 0 (Culture Media, Conditioned); 0 (Enzyme Inhibitors); 0 (Glycoproteins); 0 (Imidazoles); 0 (Protease Inhibitors); 0 (Protein Synthesis Inhibitors); 0 (Pyridines); 0 (RNA, Messenger); 0 (Tetrazoles); 0 (Tissue Inhibitor of Metalloproteinases); 0 (Vasoconstrictor Agents); EC 2.7.1.37 (Protein Kinase C)

L173 ANSWER 67 OF 99 MEDLINE on STN
ACCESSION NUMBER: 96388538 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8795938
TITLE: The effect of **maitake** mushrooms on liver and serum lipids.
AUTHOR: Kubo K; Nanba H
CORPORATE SOURCE: Department of Microbial Chemistry, Kobe Pharmaceutical University, Japan.
SOURCE: Alternative therapies in health and medicine, (1996 Sep) Vol. 2, No. 5, pp. 62-6.
Journal code: 9502013. ISSN: 1078-6791.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 6 Nov 1996
Last Updated on STN: 29 Jan 1999
Entered Medline: 23 Oct 1996

ABSTRACT:
OBJECTIVE: To determine the efficacy of **maitake** mushrooms in inhibiting the elevation of liver and serum lipids in rats. DESIGN: Sprague-Dawley rats with **hyperlipidemia** were used to measure and compare the values of cholesterol, phospholipids, and triglycerides between cholesterol-fed rats and rats whose diets were fortified with 20% ***maitake*** mushroom dried powder. RESULTS: The values in **maitake** -fed rats were consistently less than those in the basic cholesterol-fed rats. The value of high-density lipoprotein cholesterol, which usually is decreased by taking high-cholesterol feed, maintained the level that it had at the beginning of the experiment. Weights of extirpated liver and epididymal fat pads were significantly less than those in the basic feed group. CONCLUSION: Our data suggest that **maitake** mushrooms have the ability to alter lipid metabolism by inhibiting both the accumulation of liver lipids and the elevation of serum lipids. Further studies are needed to elucidate the

mechanism of activity of **maitake** mushrooms and to establish whether their action in humans is similar to that in the animal model tested here.
CONTROLLED TERM: Check Tags: Male
Animals
*Basidiomycota
Comparative Study
*Complementary Therapies
Lipids: BL, blood
Rats
Rats, Sprague-Dawley
CHEMICAL NAME: 0 (Lipids)

L173 ANSWER 68 OF 99 MEDLINE on STN
ACCESSION NUMBER: 96154438 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8593430
TITLE: Structure-activity relationship of (1-->3)-beta-D-glucans in the induction of cytokine production from macrophages, in vitro.
AUTHOR: Okazaki M; Adachi Y; Ohno N; Yadomae T
CORPORATE SOURCE: Laboratory of Immunopharmacology of Microbial Products School of Pharmacy, Tokyo University of Pharmacy and Life Science, Japan.
SOURCE: Biological & pharmaceutical bulletin, (1995 Oct) Vol. 18, No. 10, pp. 1320-7.
Journal code: 9311984. ISSN: 0918-6158.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199604
ENTRY DATE: Entered STN: 22 Apr 1996
Last Updated on STN: 22 Apr 1996
Entered Medline: 8 Apr 1996
ABSTRACT:
In a previous study, we reported that one of the gel-forming (1-->3)-beta-D-glucans, grifolan (from **Grifola** frondosa, GRN), stimulated cytokine production from macrophages in vitro. However, several other gel-forming (1-->3)-beta-D-glucans, such as sonifilan (SPG) and SSG, did not induce cytokine production from macrophages. The ultrastructure of gel-forming (1-->3)-beta-D-glucans, especially the triple- and single-helix, does not affect the cytokine-inducing activity. The action on tumor necrosis factor alpha (TNF alpha) release was correlated with the **molecular** ***weight*** of GRN, since the highest **molecular weight** fraction of GRN, Mr > or = 45000, exhibited the strongest activity. Although, native SSG (Mr > or = 2000000) did not induce cytokine production, chemical modification involving debranching of the side chain glucosyl residues of SSG resulted in TNF alpha inducing activity. These results suggest that the branching **ratio** and **molecular weight** of (1-->3)-beta-D-glucans are important factors for the production of cytokines from macrophages. GRN-inducible TNF alpha release was reduced by co-culturing with SPG, SSG, or the soluble beta-glucan, laminarin (LAM). Pretreatment alone with SPG or LAM was not sufficient for significant inhibition of GRN-inducible TNF alpha release. TNF alpha production induced with 50 micrograms/ml of zymosan (ZyM) was also reduced by addition of SPG, but TNF alpha production, stimulated with a higher concentration (100 micrograms/ml) of ZyM or with lipopolysaccharide (LPS), was not reduced significantly. The inhibitory effect of LAM on the uptake of GRN by RAW264.7 cells was not completely correlated with TNF alpha release. These results suggest that macrophages may incorporate beta-glucans through certain (1-->3)-beta-D-glucan-specific mechanisms and/or other endocytosis pathways, and that the beta-glucan-specific route is

partially associated with cytokine production. In conclusion, TNF alpha release by macrophages is induced only by beta-glucans with high ***molecular*** **weights** and lower branching **ratios**, and the mechanism for the recognition of beta-glucans is multiple and assumed to be divided into several parts involving various cellular functions.

CONTROLLED TERM: Adjuvants, Immunologic: CH, chemistry
*Adjuvants, Immunologic: PD, pharmacology
Animals
Cell Line
*Cytokines: BI, biosynthesis
Endocytosis: DE, drug effects
Enzyme-Linked Immunosorbent Assay
Glucans: CH, chemistry
*Glucans: PD, pharmacology
In Vitro
Interleukin-6: BI, biosynthesis
Lipopolysaccharides: PD, pharmacology
Macrophages: DE, drug effects
*Macrophages: IM, immunology
Mice
Molecular Weight
Oxidation-Reduction
Structure-Activity Relationship
Tumor Necrosis Factor-alpha: BI, biosynthesis
Zymosan: PD, pharmacology
*beta-Glucans

CAS REGISTRY NO.: 104074-36-4 (grifolan); 9010-72-4 (Zymosan)

CHEMICAL NAME: 0 (Adjuvants, Immunologic); 0 (Cytokines); 0 (Glucans); 0 (Interleukin-6); 0 (Lipopolysaccharides); 0 (Tumor Necrosis Factor-alpha); 0 (beta-Glucans)

L173 ANSWER 69 OF 99 MEDLINE on STN

ACCESSION NUMBER: 96318516 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8749321

TITLE: Characterization of a thermostable lysine-specific metalloendopeptidase from the fruiting bodies of a basidiomycete, **Grifola** frondosa.

AUTHOR: Nonaka T; Ishikawa H; Tsumuraya Y; Hashimoto Y; Dohmae N

CORPORATE SOURCE: Department of Biochemistry, Saitama University.

SOURCE: Journal of biochemistry, (1995 Nov) Vol. 118, No. 5, pp. 1014-20.
Journal code: 0376600. ISSN: 0021-924X.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199701

ENTRY DATE: Entered STN: 19 Feb 1997
Last Updated on STN: 3 Mar 2000
Entered Medline: 21 Jan 1997

ABSTRACT:
A zinc-metalloendopeptidase, MEP, capable of catalyzing specific cleavage of acyl-lysine bonds (-X-Lys-) in polypeptides has been purified 212-fold in a yield of 24.7% from the fruiting bodies of **Grifola** frondosa, which is a popular edible mushroom called "MAITA-KE" in Japan. The purified enzyme consists of a single polypeptide chain with an apparent molecular mass of 20 kDa and a pI value of 7.46, contains 1 atom of zinc/molecule and can be inactivated with EDTA or 1,10-phenanthroline. Treatment of MEP with EDTA affords an apoenzyme, whose activity can be fully restored by the addition of Mn2+, Zn2+, Ca2+, or Co2+. Prominent features of MEP are its remarkable heat

stability and its high affinity for beta-D-glucans and chitin. It hydrolyzes proteins maximally at pH 9-10, liberating only lysylpeptides. Polylysine and lysine copolymers with alanine, phenylalanine, or glutamic acid can serve as good substrates. Lysylalanine was liberated from bovine insulin and its oxidized B chain by the action of MEP. Mass spectrometric analysis by Frit-FAB MS of the fragments generated from horse heart cytochrome c presented unambiguous evidence to corroborate the specificity of MEP for acyl-lysine bonds.

CONTROLLED TERM: Amino Acid Sequence
*Basidiomycota: EN, enzymology
Basidiomycota: UL, ultrastructure
Chitin: CH, chemistry
Enzyme Stability
*Heat
Hydrogen-Ion Concentration
*Lysine: CH, chemistry
Metalloendopeptidases: DE, drug effects
*Metalloendopeptidases: IP, isolation & purification
Metals: PD, pharmacology
Molecular Sequence Data
Molecular Weight
***Proteoglycans: CH, chemistry**
Substrate Specificity

CAS REGISTRY NO.: 1398-61-4 (Chitin); 56-87-1 (Lysine)
CHEMICAL NAME: 0 (Metals); 0 (Proteoglycans); EC 3.4.24 (Metalloendopeptidases)

L173 ANSWER 70 OF 99 MEDLINE on STN
ACCESSION NUMBER: 95253138 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7735226
TITLE: Enhancement of LPS triggered TNF-alpha (tumor necrosis factor-alpha) production by (1-->3)-beta-D-glucans in mice.
AUTHOR: Ohno N; Asada N; Adachi Y; Yadomae T
CORPORATE SOURCE: Tokyo College of Pharmacy, Japan.
SOURCE: Biological & pharmaceutical bulletin, (1995 Jan) Vol. 18, No. 1, pp. 126-33.
Journal code: 9311984. ISSN: 0918-6158.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199506
ENTRY DATE: Entered STN: 15 Jun 1995
Last Updated on STN: 3 Feb 1997
Entered Medline: 7 Jun 1995

ABSTRACT:
Effects of (1-->3)-beta-D-glucans on tumor necrosis factor-alpha (TNF-alpha) production in mice in vivo were investigated with or without triggering stimulation of lipopolysaccharide (LPS). Administration of grifolan (GRN) (100-250 micrograms/mouse) obtained from **Grifola** frondosa, did not elevate the TNF-alpha concentration in serum, but significantly elevated LPS (10 micrograms/mouse)-elicited TNF-alpha production in serum. The priming effect was observed as early as 2 h after administration and remained high for 3 weeks. The priming effect was dependent on the strain of mice, i.e. ICR, BALB/c, and MRL/lpr (15 weeks old) showed high response. In addition, GRN administration increased membrane-bound TNF-alpha assessed by Western blotting and flow cytometry. Comparing the activity using structurally related glucans obtained from other microorganisms, highly branched glucans, SSG isolated from Sclerotinia sclerotiorum IFO 9395 and OL-2 from Omphalia lapidescence significantly increased TNF-alpha production. Small **molecular**

weight GRN derivatives prepared by heat degradation method showed weaker priming effect. These facts suggested that the glucans showed priming effect of TNF-alpha production in vivo and that this effect was related to the degree of branching and **molecular weight.**

CONTROLLED TERM: Animals
Base Sequence
*Biological Response Modifiers: PD, pharmacology
Blotting, Western
Cells, Cultured
Enzyme-Linked Immunosorbent Assay
Flow Cytometry
*Glucans: PD, pharmacology
Kinetics
*Lipopolysaccharides: PD, pharmacology
Liver: DE, drug effects
Liver: ME, metabolism
Macrophages: ME, metabolism
Mice
Mice, Inbred BALB C
Mice, Inbred ICR
Molecular Sequence Data
Spleen: DE, drug effects
Spleen: ME, metabolism
Structure-Activity Relationship
***Tumor Necrosis Factor-alpha: BI, biosynthesis**
*beta-Glucans

CAS REGISTRY NO.: 9051-97-2 (beta-1,3-glucan)

CHEMICAL NAME: 0 (Biological Response Modifiers); 0 (Glucans); 0 (Lipopolysaccharides); 0 (Tumor Necrosis Factor-alpha); 0 (beta-Glucans)

L173 ANSWER 71 OF 99 MEDLINE on STN

ACCESSION NUMBER: 95253105 MEDLINE

DOCUMENT NUMBER: PubMed ID: 7537572

TITLE: Enhancement of cytokine production by macrophages stimulated with (1-->3)-beta-D-glucan, grifolan (GRN), isolated from **Grifola** frondosa.

AUTHOR: Adachi Y; Okazaki M; Ohno N; Yadomae T

CORPORATE SOURCE: Laboratory of Immunopharmacology of Microbial Products, Tokyo University of Pharmacy and Life Science, Japan.

SOURCE: Biological & pharmaceutical bulletin, (1994 Dec) Vol. 17, No. 12, pp. 1554-60.
Journal code: 9311984. ISSN: 0918-6158.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199506

ENTRY DATE: Entered STN: 15 Jun 1995
Last Updated on STN: 29 Jan 1996
Entered Medline: 8 Jun 1995

ABSTRACT:
The ability of grifolan (GRN), a purified fungal (1-->3)-beta-D-glucan, to induce various cytokines from macrophages was examined in vitro. Interleukin-6 (IL-6) activity in supernatants from the culture of macrophage cell line, RAW264.7 was dependent on increasing doses of GRN. The level of IL-6 induced with 500 micrograms/ml of GRN was comparable to that induced with lipopolysaccharide (LPS) 10 micrograms/ml. Enhancement of the mRNA level of IL-6 by treatment with GRN was detected by reverse transcriptase-polymerase chain reaction (RT-PCR). The effect of GRN on production of IL-6 was also

observed using peritoneal macrophages from C3H/HeJ mice which did not respond to endotoxins. This data suggested that the ability of GRN to activate IL-6 production of macrophages is not due to contamination of endotoxins in the preparation. Enhanced production of cytokine by GRN was observed not only with IL-6, but also with interleukin-1 (IL-1) and tumor necrosis factor alpha (TNF alpha). In the production of TNF alpha, GRN was more effective than LPS used in this study. Other soluble or gel-forming(1-->3)-beta-D-glucans from various sources did not enhance the production of such cytokines although they are structurally similar to GRN. The above results indicate that GRN is a novel macrophage activator which augments cytokine production without dependence on endotoxins.

CONTROLLED TERM: Adjuvants, Immunologic: IP, isolation & purification
*Adjuvants, Immunologic: PD, pharmacology
Animals
Base Sequence
*Cytokines: BI, biosynthesis
Glucans: IP, isolation & purification
Glucans: PD, pharmacology
In Vitro
Interleukin-1: BI, biosynthesis
Interleukin-6: BI, biosynthesis
Lipopolysaccharides: PD, pharmacology
Macrophages, Peritoneal: DE, drug effects
*Macrophages, Peritoneal: ME, metabolism
Mice
Mice, Inbred C3H
Molecular Sequence Data
*Plants, Medicinal: CH, chemistry
Polymerase Chain Reaction
RNA-Directed DNA Polymerase
T-Lymphocytes: DE, drug effects
Tumor Necrosis Factor-alpha: BI, biosynthesis
*beta-Glucans

CAS REGISTRY NO.: 104074-36-4 (grifolan)

CHEMICAL NAME: 0 (Adjuvants, Immunologic); 0 (Cytokines); 0 (Glucans); 0 (Interleukin-1); 0 (Interleukin-6); 0 (Lipopolysaccharides); 0 (Tumor Necrosis Factor-alpha); 0 (beta-Glucans); EC 2.7.7.49 (RNA-Directed DNA Polymerase)

L173 ANSWER 72 OF 99 MEDLINE on STN

ACCESSION NUMBER: 95119980 MEDLINE

DOCUMENT NUMBER: PubMed ID: 7820117

TITLE: Anti-**diabetic** activity present in the fruit body of **Grifola** frondosa (**Maitake**). I.

AUTHOR: Kubo K; Aoki H; Nanba H

CORPORATE SOURCE: Yukiguni Maitake Co., Ltd. Niigata, Japan.

SOURCE: Biological & pharmaceutical bulletin, (1994 Aug) Vol. 17, No. 8, pp. 1106-10.
Journal code: 9311984. ISSN: 0918-6158.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199502

ENTRY DATE: Entered STN: 23 Feb 1995
Last Updated on STN: 23 Feb 1995
Entered Medline: 10 Feb 1995

ABSTRACT:

The fruit body of **Grifola** frondosa (**maitake**), Basidiomycetes was confirmed to contain substances with anti-**diabetic**

activity. When 1 g/d of powdered fruit body of **maitake** was given orally to a genetically **diabetic** mouse (KK-Ay), blood glucose reduction was observed, in contrast to the control group in which the blood glucose increased with ageing. Moreover, levels of insulin and triglyceride in plasma demonstrated a change similar to blood glucose with feeding of ***maitake.*** Ether-ethanol-soluble (ES) and hot water-soluble (WS) fractions were prepared from the fruit body and their hypoglycemic activity was examined. Blood glucose-lowering activity was found when ES-fraction or WS-50% ethanol float (X) fraction was administered orally, but other WS-fractions were inactive. These results suggest that the anti-**diabetic** activity was present not only in the ES-fraction consisting of lipid but also in the X-fraction of peptidoglycan (sugar:protein = 65:35).

CONTROLLED TERM: Check Tags: Female
Animals
*Blood Glucose: ME, metabolism
Diabetes Mellitus, Type 2: DT, drug therapy
Diabetes Mellitus, Type 2: GE, genetics
*Hypoglycemic Agents: PD, pharmacology
Insulin: BL, blood
Mice
Mice, Inbred Strains
Peptidoglycan: ME, metabolism
*Polyporaceae: CH, chemistry
Triglycerides: BL, blood

CAS REGISTRY NO.: 11061-68-0 (Insulin)

CHEMICAL NAME: 0 (Blood Glucose); 0 (Hypoglycemic Agents); 0 (Peptidoglycan); 0 (Triglycerides)

L173 ANSWER 73 OF 99 MEDLINE on STN

ACCESSION NUMBER: 89293375 MEDLINE

DOCUMENT NUMBER: PubMed ID: 2738717

TITLE: Dietary mushrooms reduce **blood pressure** in spontaneously **hypertensive** rats (SHR).

AUTHOR: Kabir Y; Kimura S

CORPORATE SOURCE: Department of Food Chemistry, Faculty of Agriculture, Tohoku University, Sendai, Japan.

SOURCE: Journal of nutritional science and vitaminology, (1989 Feb) Vol. 35, No. 1, pp. 91-4.
Journal code: 0402640. ISSN: 0301-4800.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198908

ENTRY DATE: Entered STN: 9 Mar 1990
Last Updated on STN: 29 Jan 1999
Entered Medline: 3 Aug 1989

ABSTRACT:
The **blood pressure** of spontaneously **hypertensive** rats (SHR) were significantly reduced by **Maitake** feeding for 8 weeks period beginning at a time when the animals were 10 weeks of age with well-established high **blood pressure.** There was no difference in the plasma total and free cholesterol, triglyceride and phospholipid levels between the **Maitake** fed animals and the control. On the other hand, Shiitake mushroom did not reduce the **blood** ***pressure*** , but significantly lower the plasma free cholesterol, triglyceride and phospholipid in compared with the control. The results suggest that dietary **Maitake** mushroom reduce the **blood** ***pressure.***

CONTROLLED TERM: Check Tags: Male

Animals
*Basidiomycota
***Blood Pressure: DE, drug effects**
Body Weight: DE, drug effects
Cholesterol: BL, blood
*Diet
Organ Size: DE, drug effects
Phospholipids: BL, blood
Rats
Rats, Inbred SHR
Triglycerides: BL, blood
CAS REGISTRY NO.: 57-88-5 (Cholesterol)
CHEMICAL NAME: 0 (Phospholipids); 0 (Triglycerides)

L173 ANSWER 74 OF 99 MEDLINE on STN
ACCESSION NUMBER: 88311245 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3409391
TITLE: **Blood pressure**-lowering activity present in the fruit body of **Grifola** frondosa (**maitake**). I.
AUTHOR: Adachi K; Nanba H; Otsuka M; Kuroda H
SOURCE: Chemical & pharmaceutical bulletin, (1988 Mar) Vol. 36, No. 3, pp. 1000-6.
Journal code: 0377775. ISSN: 0009-2363.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198810
ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 29 Jan 1999
Entered Medline: 11 Oct 1988
CONTROLLED TERM: Check Tags: Male
Animals
***Antihypertensive Agents**
*Basidiomycota: AN, analysis
Blood Pressure: DE, drug effects
Japan
Rats
Rats, Inbred SHR
CHEMICAL NAME: 0 (**Antihypertensive** Agents)

L173 ANSWER 75 OF 99 MEDLINE on STN
ACCESSION NUMBER: 88171777 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3443885
TITLE: Effect of shiitake (Lentinus edodes) and **maitake** (**Grifola** frondosa) mushrooms on **blood pressure** and plasma lipids of spontaneously **hypertensive** rats.
AUTHOR: Kabir Y; Yamaguchi M; Kimura S
CORPORATE SOURCE: Department of Food Chemistry, Faculty of Agriculture, Tohoku University, Sendai, Japan.
SOURCE: Journal of nutritional science and vitaminology, (1987 Oct) Vol. 33, No. 5, pp. 341-6.
Journal code: 0402640. ISSN: 0301-4800.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198804

ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 29 Jan 1999
Entered Medline: 27 Apr 1988

ABSTRACT:
To study the effect of Shiitake (Lentinus edodes) and **Maitake** (
Grifola frondosa) on **hypertension**, spontaneously
hypertensive rats (SHR) were fed a diet containing 5% mushroom powder and 0.5% NaCl solution as drinking water for 9 weeks. The dietary mushrooms decreased the **blood pressure.** The plasma free cholesterol level decreased in Shiitake-fed animals, whereas in **Maitake**-fed animals the total cholesterol level decreased. There was no difference in the plasma triglyceride and phospholipid levels among the experimental groups. Shiitake feeding resulted in a decrease in VLDL- and HDL-cholesterol whereas ***Maitake*** feeding caused a decrease in VLDL-cholesterol only. Plasma LDL-cholesterol was not affected by dietary mushrooms. The results suggest that dietary mushrooms prevent **blood pressure** increase in ***hypertension.***

CONTROLLED TERM: Check Tags: Male
Animals
*Basidiomycota: AN, analysis
***Blood Pressure: DE, drug effects**
Growth
Hypertension: BL, blood
***Hypertension: PP, physiopathology**
*Lipids: BL, blood
Rats
Rats, Inbred SHR

CHEMICAL NAME: 0 (Lipids)

L173 ANSWER 76 OF 99 MEDLINE on STN
ACCESSION NUMBER: 79167809 MEDLINE
DOCUMENT NUMBER: PubMed ID: 108021
TITLE: [Isolated rat hepatocytes. Simultaneous study of variations in sialic acid content of glycoconjugated membranes and asialotransferrin uptake].
Hepatocytes isoles de rat. Etude simultanee des variations de la teneur en acide sialique de glycocongugues membranaires et de la captation de l'asialotransferrine.
AUTHOR: Durand G; Dumont J P; Appel M; Durand D; Davy J; Feger J; Agneray J
SOURCE: Comptes rendus des seances de l'Academie des sciences. Serie D, Sciences naturelles, (1979 Feb 5) Vol. 288, No. 5, pp. 523-6.
Journal code: 8108552. ISSN: 0567-655X.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197907
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 15 Mar 1990
Entered Medline: 25 Jul 1979

ABSTRACT:
Hepatocytes isolated from streptozotocin treated Rats bind less asialotransferrin than hepatocytes isolated from normal rats. This decrease is parallel with a decrease in the sialic acid content. Insulin therapy restored simultaneously membrane sialic acid content and asialotransferrin binding capacity.

CONTROLLED TERM: Check Tags: Male
Animals

Blood Glucose: ME, metabolism
Diabetes Mellitus, Experimental: DT, drug therapy
*Diabetes Mellitus, Experimental: ME, metabolism
English Abstract
Glycoproteins: PD, pharmacology
Insulin: BL, blood
Insulin: TU, therapeutic use
Liver: CY, cytology
*Liver: ME, metabolism
Membranes: ME, metabolism
Protein Binding
Rats
*Sialic Acids: ME, metabolism
*Transferrin: AA, analogs & derivatives
Transferrin: ME, metabolism

CAS REGISTRY NO.: 11061-68-0 (Insulin); 11096-37-0 (Transferrin)
CHEMICAL NAME: 0 (Blood Glucose); 0 (Glycoproteins); 0 (Sialic Acids)

L173 ANSWER 77 OF 99 EMBASE
ACCESSION NUMBER: 2006091584 EMBASE
TITLE: [Treatment of patients with diabetes mellitus type 2 and coronary artery disease].
BEHANDELING VAN PATIENTEN MET DIABETES MELLITUS TYPE 2 EN TEVENS CORONAIRE HARTZIEKTEN.
AUTHOR: Wiersma J.J.; Trip M.D.; Piek J.J.
CORPORATE SOURCE: J.J. Wiersma, Academisch Medisch Centrum, Universiteit van Amsterdam, Afd. Cardiologie, Meibergdreef 9, 1105 AZ Amsterdam, Netherlands. j.j.wiersma@amc.uva.nl
SOURCE: Nederlands Tijdschrift voor Geneeskunde, (18 Feb 2006) Vol. 150, No. 7, pp. 361-366. .
Refs: 39
ISSN: 0028-2162 CODEN: NETJAN
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index
LANGUAGE: Dutch
SUMMARY LANGUAGE: English; Dutch
ENTRY DATE: Entered STN: 10 Mar 2006
Last Updated on STN: 10 Mar 2006
ABSTRACT: Of all patients presenting with coronary artery disease, 20-30% already have a diagnosis of diabetes mellitus type 2. Of the remaining patients, another 15-20% are found at presentation to have diabetes mellitus and 30% have glucose intolerance. Both conditions are major risk factors for the recurrence of coronary artery disease and mortality. The treatment of patients with diabetes mellitus type 2 always includes improvement in lifestyle, adequate blood-glucose control, cholesterol-lowering therapy and blood-pressure control. Furthermore, if one or more other traditional cardiovascular risk factors are present, or if the patient is over 40 years of age, acetylsalicylic acid must be added. Finally, with a prior history of coronary-artery disease, patients must be given an angiotensin converting enzyme (ACE) inhibitor. During percutaneous coronary interventions, patients with diabetes mellitus type 2 are preferably treated with a drug-eluting stent in combination with clopidogrel, and in case of an acute coronary syndrome, glycoprotein (GP) IIb/IIIa receptor antagonists are added to the standard treatment.

CONTROLLED TERM: Medical Descriptors:

***non insulin dependent diabetes mellitus: DT, drug therapy**
*coronary artery disease: DT, drug therapy
glucose intolerance
mortality
quality of life
blood glucose monitoring
blood pressure regulation
cardiovascular risk
drug eluting stent
human
review

CONTROLLED TERM: Drug Descriptors:
*hypocholesterolemic agent: DT, drug therapy
*acetylsalicylic acid: DT, drug therapy
*dipeptidyl carboxypeptidase inhibitor: DT, drug therapy
*clopidogrel: CB, drug combination
*clopidogrel: DT, drug therapy
*glycoprotein IIb: CB, drug combination
***glycoprotein IIb: DT, drug therapy**
*beta1 integrin: CB, drug combination
*beta1 integrin: DT, drug therapy

CAS REGISTRY NO.: (acetylsalicylic acid) 493-53-8, 50-78-2, 53663-74-4, 53664-49-6, 63781-77-1; (clopidogrel) 113665-84-2, 120202-66-6, 90055-48-4, 94188-84-8

L173 ANSWER 78 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2006041658 EMBASE
TITLE: Botanical polysaccharides: Macrophage immunomodulation and therapeutic potential.
AUTHOR: Schepetkin I.A.; Quinn M.T.
CORPORATE SOURCE: M.T. Quinn, Department of Veterinary Molecular Biology, Montana State University, Bozeman, MT 59717, United States. mquinn@montana.edu
SOURCE: International Immunopharmacology, (2006) Vol. 6, No. 3, pp. 317-333. .
Refs: 184
ISSN: 1567-5769 CODEN: IINMBA
PUBLISHER IDENT.: S 1567-5769(05)00286-9
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 026 Immunology, Serology and Transplantation
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 3 Mar 2006
Last Updated on STN: 3 Mar 2006

ABSTRACT: Botanical polysaccharides exhibit a number of beneficial therapeutic properties, and it is thought that the mechanisms involved in these effects are due to the modulation of innate immunity and, more specifically, macrophage function. In this review, we summarize our current state of understanding of the macrophage modulatory effects of botanical polysaccharides isolated from a wide array of different species of flora, including higher plants, mushrooms, lichens and algae. Overall, the primary effect of botanical polysaccharides is to enhance and/or activate macrophage immune responses, leading to immunomodulation, anti-tumor activity, wound-healing and other therapeutic effects. Furthermore, botanical and microbial polysaccharides bind to common surface receptors and induce similar immunomodulatory responses in macrophages,

suggesting that evolutionarily conserved polysaccharide structural features are shared between these organisms. Thus, the evaluation of botanical polysaccharides provides a unique opportunity for the discovery of novel therapeutic agents and adjuvants that exhibit beneficial immunomodulatory properties.

CONTROLLED TERM: Medical Descriptors:
macrophage
higher plant
mushroom
lichen
alga
immune response
antineoplastic activity
immunomodulation
drug mechanism
host resistance
drug effect
drug binding
human
nonhuman
review
priority journal
Drug Descriptors:
*polysaccharide: IP, intraperitoneal drug administration
*polysaccharide: PO, oral drug administration
*polysaccharide: PD, pharmacology
acemannan: PD, pharmacology
krestin: PD, pharmacology
proteoglycan: PD, pharmacology
glycosaminoglycan: PD, pharmacology
arabinogalactan: PO, oral drug administration
arabinogalactan: PD, pharmacology
beta glucan: PD, pharmacology
grifolan: PD, pharmacology
lentinan: PD, pharmacology
galactomannan: PD, pharmacology
schizophyllan: PD, pharmacology
scleroglucan: PD, pharmacology
fucoidin: PD, pharmacology
Astragalus extract: PD, pharmacology
aleoride: PD, pharmacology
angelan: PD, pharmacology
acid polysaccharide: PD, pharmacology
celosian: PD, pharmacology
panaxane: PD, pharmacology
pectic polysaccharide: PD, pharmacology
callus acidic arabinogalactan: PD, pharmacology
heteromannan: PD, pharmacology
alpha glucan: IP, intraperitoneal drug administration
alpha glucan: PD, pharmacology
acidic heteroglycan: PD, pharmacology
polysaccharopeptide: PO, oral drug administration
polysaccharopeptide: PD, pharmacology
fucogalactan: PD, pharmacology
immunon: PD, pharmacology
unindexed drug
xyloglucan: PO, oral drug administration
xyloglucan: PD, pharmacology
unclassified drug

CAS REGISTRY NO.: (acemannan) 110865-83-3; (krestin) 66455-27-4; (arabinogalactan) 9036-66-2; (**grifolan**) 104074-36-4; (lentinan) 37339-90-5; (galactomannan) 11078-30-1; (schizophyllan) 9050-67-3; (scleroglucan) 39464-87-4; (fucoidin) 9072-19-9

L173 ANSWER 79 OF 99 EMBASE

ACCESSION NUMBER: 2006023395 EMBASE

TITLE: MDR1 gene polymorphisms and risk of gingival hyperplasia induced by calcium antagonists.

AUTHOR: Meisel P.; Giebel J.; Kunert-Keil C.; Dazert P.; Kroemer H.K.; Kocher T.

CORPORATE SOURCE: Dr. P. Meisel, Department of Pharmacology, University of Greifswald, Friedrich-Loeffler-Strasse 23d, D-17487 Greifswald, Germany. meiselp@uni-greifswald.de

SOURCE: Clinical Pharmacology and Therapeutics, (2006) Vol. 79, No. 1, pp. 62-71. .
Refs: 49
ISSN: 0009-9236 CODEN: CLPTAT

PUBLISHER IDENT.: S 0009-9236(05)00416-9

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 011 Otorhinolaryngology
022 Human Genetics
037 Drug Literature Index
038 Adverse Reactions Titles

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 2 Feb 2006
Last Updated on STN: 2 Feb 2006

ABSTRACT: Background: Gingival overgrowth is a common side effect of calcium antagonists. Although the pathogenesis is unknown, several lines of evidence point to a modulation of inflammatory processes. Because the calcium antagonists, albeit to a variable degree, act as inhibitors of P-glycoprotein (P-gp), the gene product of multidrug resistance 1 (MDR1), and inflammation may modify P-gp expression, we analyzed the MDR1 polymorphisms as risk factors for gingival overgrowth induced by calcium antagonists. Methods: Clinical, laboratory, and anamnestic data including periodontal parameters and use of calcium antagonists were assessed in a cross-sectional epidemiologic investigation (N = 1484). MDR1 polymorphisms in exon 21 G2677T/A and exon 26 C3435T were determined. P-gp expression was detected in gingival tissues. In a matched-pair analysis, 93 subjects using calcium antagonists and 186 not using them were compared. Results: P-gp is expressed in the endothelial layers of blood vessels obtained from healthy or inflamed gingiva. Subjects treated with calcium antagonists had significantly deeper gingival pockets than their drug-free counterparts (P <.0001). This drug-related side effect was associated with the MDR1 2677G/G or G/TA genotype (P <.001) but not with the variant genotype T/TA. This drug effect was proved by multiple regression analysis with adjustment for the risk factors of periodontitis (age, sex, smoking, and education) (P <.0001) and was associated with elevated C-reactive protein levels. The association of probing depth with the MDR1 polymorphism was confirmed in the matched-pair analysis (P <.0001). Conclusion: Treatment with calcium antagonists leads to gingival hyperplasia, which is associated with the MDR1 G2677T/A polymorphism. The MDR1 genotype may modify the inflammatory response to the drugs. Copyright .COPYRGT. 2006 by the American Society for Clinical Pharmacology and Therapeutics.

CONTROLLED TERM: Medical Descriptors:
*gingiva hyperplasia: SI, side effect

*DNA polymorphism
risk factor
protein expression
genotype
periodontitis
multiple regression
hypertension: DT, drug therapy
cardiovascular disease: DT, drug therapy
statistical analysis
human
major clinical study
controlled study
adult
article
priority journal
Drug Descriptors:
*calcium antagonist: AE, adverse drug reaction
*calcium antagonist: DT, drug therapy
*glycoprotein P inhibitor: AE, adverse drug reaction
***glycoprotein P inhibitor: DT, drug therapy**
glycoprotein P: EC, endogenous compound
gene product: EC, endogenous compound
multidrug resistance protein 1: EC, endogenous compound
nifedipine: AE, adverse drug reaction
nifedipine: DT, drug therapy
amlodipine: AE, adverse drug reaction
amlodipine: DT, drug therapy
nitrendipine: AE, adverse drug reaction
nitrendipine: DT, drug therapy
dihydropyridine: AE, adverse drug reaction
dihydropyridine: DT, drug therapy
verapamil: AE, adverse drug reaction
verapamil: DT, drug therapy
diltiazem: AE, adverse drug reaction
diltiazem: DT, drug therapy
CAS REGISTRY NO.: (nifedipine) 21829-25-4; (amlodipine) 88150-42-9; (nitrendipine) 39562-70-4; (dihydropyridine) 27790-75-6; (verapamil) 152-11-4, 52-53-9; (diltiazem) 33286-22-5, 42399-41-7

L173 ANSWER 80 OF 99 EMBASE
ACCESSION NUMBER: 2005439453 EMBASE
TITLE: Production of exopolysaccharide from mycelial culture of **Grifola** frondosa and its inhibitory effect on matrix metalloproteinase-1 expression in UV-irradiated human dermal fibroblasts.
AUTHOR: Bae J.T.; Sim G.S.; Lee D.H.; Lee B.C.; Pyo H.B.; Choe T.B.; Yun J.W.
CORPORATE SOURCE: J.W. Yun, Department of Biotechnology, Daegu University, Kyungsan, Kyungbuk 712-714, Korea, Republic of. jwyun@daegu.ac.kr
SOURCE: FEMS Microbiology Letters, (15 Oct 2005) Vol. 251, No. 2, pp. 347-354. .
Refs: 34
ISSN: 0378-1097 CODEN: FMLED7
PUBLISHER IDENT.: S 0378-1097(05)00572-0
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology

030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Oct 2005
Last Updated on STN: 27 Oct 2005

ABSTRACT: Exopolysaccharide (EPS) was prepared by submerged mycelial culture of a newly isolated mushroom **Grifola** frondosa HB0071 in a 5-l stirred-tank fermenter. This fungus produced a high concentration of biomass (24.8 g l(-1) at day 4), thereby achieving high EPS concentration (7.2 g l(-1) at day 4). EPS was proven to be a proteoglycan consisting of 85.6% carbohydrates (mostly glucose) and 7.3% proteins with a **molecular** ***weight*** of 1.0 x 10(6) Da. The photoprotective potential of EPS was tested in human dermal fibroblasts (HDF) exposed to ultraviolet-A (UVA) light. It was revealed that EPS had an inhibitory effect on human interstitial collagenase (matrix metalloproteinase, MMP-1) expression in UVA-irradiated HDF without any significant cytotoxicity. The treatment of UVA-irradiated HDF with EPS resulted in a dose-dependent decrease in the expression level of MMP-1 mRNA (by maximum 61.1% at an EPS concentration 250 μg ml(-1)). These results suggest that EPS obtained from mycelial culture of G. frondosa HB0071 may contribute to inhibitory action in photoaging skin by reducing the MMP 1-related matrix degradation system.

CONTROLLED TERM: Medical Descriptors:
***grifola frondosa**
*mushroom
*mycelium
*fungus culture
*skin fibroblast
*ultraviolet A radiation
*radiation protection
photoaging: PC, prevention
protein expression
fungus isolation
bioreactor
fungal biomass
molecular weight
radiation exposure
enzyme inhibition
enzyme activity
cytotoxicity
dose response
drug potency
drug isolation
human
nonhuman
controlled study
human cell
article
priority journal
Drug Descriptors:
*exopolysaccharide: DV, drug development
*exopolysaccharide: PD, pharmacology
*interstitial collagenase: EC, endogenous compound
messenger RNA: EC, endogenous compound
proteoglycan
carbohydrate
glucose
protein

CAS REGISTRY NO.: (glucose) 50-99-7, 84778-64-3; (protein) 67254-75-5

L173 ANSWER 81 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005281367 EMBASE

TITLE: [Stability of thermolabile pharmaceutical specialities under various temperature conditions [1]].
ESTABILIDAD DE LAS ESPECIALIDADES FARMACEUTICAS TERMOLABILES EN DISTINTAS CONDICIONES DE TEMPERATURA.

AUTHOR: Sala Pinol F.; Juarez Gimenez J.C.; Tomas Guillen E.; Monterde Junyent J.

CORPORATE SOURCE: F. Sala Pinol, Servicio de Farmacia, Hospital Universitario Vall d'Hebron, Barcelona, Spain

SOURCE: Farmacia Hospitalaria, (2005) Vol. 29, No. 2, pp. 144-145.
.
Refs: 2
ISSN: 1130-6343 CODEN: FAHOE2

COUNTRY: Spain

DOCUMENT TYPE: Journal; Letter

FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy

LANGUAGE: Spanish

ENTRY DATE: Entered STN: 14 Jul 2005
Last Updated on STN: 14 Jul 2005

CONTROLLED TERM: Medical Descriptors:
drug stability
temperature
drug information
drug industry
hospital pharmacy
letter
Drug Descriptors:
*fibrin glue
***alpha 1 antitrypsin**
*basiliximab
*erythropoietin
*blood clotting factor 7
*fibrinogen
recombinant granulocyte colony stimulating factor
blood clotting factor 8 inhibitor
gemtuzumab ozogamicin
heme arginate
hyaluronic acid
digoxin antibody F(ab) fragment
hepatitis B antibody
complement component C1s inhibitor
tissucol duo
prolastina
epopen
recombinant erythropoietin
recombinant blood clotting factor 7a
haemocompletan
feiba immuno tim 4
glucagon gen novo
rhesuman
gamma anti hep b
viperfav
berinert

CAS REGISTRY NO.: (alpha 1 antitrypsin) 9041-92-3; (erythropoietin) 11096-26-7; (blood clotting factor 7) 9001-25-6;

(fibrinogen) 9001-32-5; (recombinant granulocyte colony stimulating factor) 121181-53-1; (heme arginate) 100438-92-4; (hyaluronic acid) 31799-91-4, 9004-61-9, 9067-32-7; (complement component C1s inhibitor) 80295-37-0, 80295-38-1; (recombinant erythropoietin) 113427-24-0, 122312-54-3, 130455-76-4

CHEMICAL NAME: (1) Tissucol duo; (2) Prolastina; (3) Simulect; (4) Epopen; (5) Eprex; (6) Novoseven; (7) Haemocompletan; (8) Granulokine; (9) Feiba immuno tim 4; (10) Mylotarg; (11) Glucagon gen novo; (12) Normosang; (13) Healon; (14) Rhesuman; (15) Digibind; (16) Gamma anti hep b; (17) Viperfav; (18) Berinert

COMPANY NAME: (2) Bayer; (3) Novartis; (5) Janssen Cilag; (8) Pensa; (9) Baxter; (10) Wyeth; (11) Novo Nordisk; (12) Orphan; (13) Pharmacia; (14) Berna Biotech; (15) Glaxo SmithKline; **(16) Grifols**; (17) Aventis Pasteur; (18) Aventis Behring

L173 ANSWER 82 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004170296 EMBASE

TITLE: Immune modulation with high-dose heat-schock protein gp96: Therapy of murine autoimmune diabetes and encephalomyelitis.

AUTHOR: Chandawarkar R.Y.; Wagh M.S.; Kovalchin J.T.; Srivastava P.

CORPORATE SOURCE: P. Srivastava, Ctr. Immunother. Cancer/Infect. Dis., Univ. of Connecticut School of Med., Farmington, CT 06030-1601, United States. Srivastava@nso2.uchc.edu

SOURCE: International Immunology, (2004) Vol. 16, No. 4, pp. 615-624. .
Refs: 37
ISSN: 0953-8178 CODEN: INIMEN

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 026 Immunology, Serology and Transplantation
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 29 Apr 2004
Last Updated on STN: 29 Apr 2004

ABSTRACT: Immunization with heat-shock protein (HSP) gp96 elicits protective immunity to the cancer or virus-infected cells from which it is derived. Low doses of gp96 generate immunity, while doses 10 times the immunizing dose do not. We show here that injection of high doses of gp96 generates CD4(+) T cells that down-regulate a variety of ongoing immune responses. Immunization with high doses of gp96 prevents myelin basic protein- or proteolipid protein-induced autoimmune encephalomyelitis in SJL mice and the onset of diabetes in non-obese diabetic mice. The suppression of immune response can be adoptively transferred with CD4(+) cells and does not partition with the CD25 phenotype. The immunomodulatory properties of gp96 (and possibly other HSP) may be used for antigen-specific activation or suppression of cellular immune responses. The latter may form the basis for novel immunotherapies for autoimmune diseases. .COPYRGT. 2004 The Japanese Society for Immunology.

CONTROLLED TERM: Medical Descriptors:
*immunomodulation
***diabetes mellitus: DT, drug therapy**
*allergic encephalomyelitis: DT, drug therapy
drug megadose

immunization
cellular immunity
helper cell
down regulation
immunoregulation
adoptive transfer
phenotype
antigen specificity
immunotherapy
nonhuman
female
mouse
animal experiment
animal model
controlled study
animal tissue
animal cell
article
priority journal
Drug Descriptors:
***glycoprotein gp 96: DO, drug dose**
***glycoprotein gp 96: DT, drug therapy**
***glycoprotein gp 96: PD, pharmacology**
*glycoprotein gp 96: SC, subcutaneous drug administration
heat shock protein: DO, drug dose
heat shock protein: DT, drug therapy
heat shock protein: PD, pharmacology
heat shock protein: SC, subcutaneous drug administration
CD4 antigen: EC, endogenous compound
myelin basic protein: TO, drug toxicity
proteolipid protein
interleukin 2 receptor: EC, endogenous compound

L173 ANSWER 83 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004452524 EMBASE
TITLE: Gene therapy for autoimmune diseases.
AUTHOR: Furlan R.; Butti E.; Pluchino S.; Martino G.
CORPORATE SOURCE: R. Furlan, Neuroimmunology Unit, DIBIT, Dept. of Neurology/Neurophysiology, Via Olgettina 58, 20132 Milan, Italy. furlan.roberto@hsr.it
SOURCE: Current Opinion in Molecular Therapeutics, (2004) Vol. 6, No. 5, pp. 525-536. .
Refs: 159
ISSN: 1464-8431 CODEN: CUOTFO
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 008 Neurology and Neurosurgery
022 Human Genetics
026 Immunology, Serology and Transplantation
031 Arthritis and Rheumatism
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 12 Nov 2004
Last Updated on STN: 12 Nov 2004

ABSTRACT: Autoimmune diseases are thretening an increasing number of patients in developed countries, representing one of the major causes of disability and an enormous social cost. Current therapies mainly treat the symptoms of

autoimmune diseases and are only partially able to interfere with disease evolution, and therefore decrease the degree of physical impairment. Thus, the development of new therapeutic strategies is imperative. This review focuses on gene therapy, as one possible alternative approach to the treatment of autoimmune disorders. The potential of gene therapy to specifically target tissues affected by autoimmune aggression, and its ability to interfere with the destructive pathogenic process while providing functional replacement and fostering reparative mechanisms will be emphasized. Gene therapy studies in experimental models of diabetes, rheumatoid arthritis and multiple sclerosis are reviewed. .COPYRGT. The Thomson Corporation.

CONTROLLED TERM: Medical Descriptors:
***diabetes mellitus: DT, drug therapy**
*diabetes mellitus: PC, prevention
*rheumatoid arthritis: DT, drug therapy
*multiple sclerosis: DT, drug therapy
autoimmune disease: DT, drug therapy
autoimmune disease: PC, prevention
gene therapy
symptom
disease activity
physical disability
drug targeting
disease course
viral gene delivery system
nonviral gene delivery system
immunomodulation
Th1 cell
retrovirus vector
parvovirus vector
plasmid vector
Vaccinia virus
Herpes simplex virus 1
human
nonhuman
mouse
review
Drug Descriptors:
liposome
naked DNA
CD4 antigen: EC, endogenous compound
cytokine: EC, endogenous compound
interleukin 4: CB, drug combination
interleukin 4: DV, drug development
interleukin 4: DT, drug therapy
interleukin 4: PR, pharmaceutics
interleukin 4: IM, intramuscular drug administration
interleukin 4: IP, intraperitoneal drug administration
interleukin 4: IV, intravenous drug administration
interleukin 10: CB, drug combination
interleukin 10: DV, drug development
interleukin 10: DT, drug therapy
interleukin 10: PR, pharmaceutics
interleukin 10: IV, intravenous drug administration
interleukin 12: DV, drug development
interleukin 12: DT, drug therapy
interleukin 12: PR, pharmaceutics
protein p40: DV, drug development
protein p40: DT, drug therapy
protein p40: PR, pharmaceutics

transforming growth factor beta: DV, drug development
transforming growth factor beta: DT, drug therapy
transforming growth factor beta: PR, pharmaceutics
gamma interferon receptor: DV, drug development
gamma interferon receptor: DT, drug therapy
gamma interferon receptor: PR, pharmaceutics
alpha 1 antitrypsin: DV, drug development
alpha 1 antitrypsin: DT, drug therapy
alpha 1 antitrypsin: PR, pharmaceutics
alpha 1 antitrypsin: IM, intramuscular drug administration
protein bcl 2: DV, drug development
protein bcl 2: DT, drug therapy
protein bcl 2: PR, pharmaceutics
glutamate decarboxylase: DV, drug development
glutamate decarboxylase: DT, drug therapy
glutamate decarboxylase: PR, pharmaceutics
beta interferon: DV, drug development
beta interferon: DT, drug therapy
beta interferon: PR, pharmaceutics
interleukin 1 receptor blocking agent: DV, drug development
interleukin 1 receptor blocking agent: DT, drug therapy
interleukin 1 receptor blocking agent: PR, pharmaceutics
interleukin 13: DV, drug development
interleukin 13: DT, drug therapy
interleukin 13: PR, pharmaceutics
I kappa B kinase: EC, endogenous compound
phosphotransferase inhibitor: DV, drug development
phosphotransferase inhibitor: DT, drug therapy
phosphotransferase inhibitor: PR, pharmaceutics
tumor necrosis factor receptor: DV, drug development
tumor necrosis factor receptor: DT, drug therapy
tumor necrosis factor receptor: PR, pharmaceutics
cytotoxic T lymphocyte antigen 4: DV, drug development
cytotoxic T lymphocyte antigen 4: DT, drug therapy
cytotoxic T lymphocyte antigen 4: PR, pharmaceutics
gamma interferon: DV, drug development
gamma interferon: DT, drug therapy
gamma interferon: PR, pharmaceutics
interleukin 1beta: DV, drug development
interleukin 1beta: DT, drug therapy
interleukin 1beta: PR, pharmaceutics
interleukin 2: DV, drug development
interleukin 2: DT, drug therapy
interleukin 2: PR, pharmaceutics
interleukin 6: DV, drug development
interleukin 6: DT, drug therapy
interleukin 6: PR, pharmaceutics
gamma interferon inducible protein 10: DV, drug development
gamma interferon inducible protein 10: DT, drug therapy
gamma interferon inducible protein 10: PR, pharmaceutics
FAS ligand: DV, drug development
FAS ligand: DT, drug therapy
FAS ligand: PR, pharmaceutics
proteolipid protein: DV, drug development
proteolipid protein: DT, drug therapy
proteolipid protein: PR, pharmaceutics
myelin oligodendrocyte glycoprotein: DV, drug development
myelin oligodendrocyte glycoprotein: DT, drug therapy
myelin oligodendrocyte glycoprotein: PR, pharmaceutics

myelin basic protein: DV, drug development
myelin basic protein: DT, drug therapy
myelin basic protein: PR, pharmaceutics
unindexed drug

CAS REGISTRY NO.: (interleukin 12) 138415-13-1; (alpha 1 antitrypsin) 9041-92-3; (protein bcl 2) 219306-68-0; (glutamate decarboxylase) 9024-58-2; (interleukin 13) 148157-34-0; (I kappa B kinase) 209902-66-9; (tumor necrosis factor receptor) 129203-93-6, 184595-01-5; (gamma interferon) 82115-62-6; (interleukin 2) 85898-30-2; (gamma interferon inducible protein 10) 97741-20-3

L173 ANSWER 84 OF 99 EMBASE

ACCESSION NUMBER: 2004471629 EMBASE

TITLE: Comparison of antibodies directed against human respiratory syncytial virus antigens present in two commercial preparations of human immunoglobulins with different neutralizing activities.

AUTHOR: Sastre P.; Melero J.A.; Garcia-Barreno B.; Palomo C.

CORPORATE SOURCE: jmelero@isciii.es

SOURCE: Vaccine, (9 Dec 2004) Vol. 23, No. 4, pp. 435-443. .
Refs: 40
ISSN: 0264-410X CODEN: VACCDE

PUBLISHER IDENT.: S 0264-410X(04)00492-X

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 29 Nov 2004
Last Updated on STN: 29 Nov 2004

ABSTRACT: Antibodies directed against human respiratory syncytial virus (HRSV) from two commercial preparations of human immunoglobulins (Igs) were compared. One of the Ig preparations (RespiGam) was obtained from blood samples selected for high titres of anti-HRSV neutralizing antibodies. The other preparation (Flebogamma) was obtained from unselected blood donations. RespiGam and Flebogamma had very similar anti-HRSV ELISA titres, but RespiGam neutralized virus infectivity 8-10 times more efficiently than Flebogamma. The same behaviour was observed when purified antibodies from RespiGam and Flebogamma, specific for either the fusion (F) or the attachment (G) **glycoprotein** , were compared. To gain further information about differences in neutralization between these two Ig preparations, antibodies recognizing certain F and G protein fragments or peptides were purified and their neutralizing activities were compared. In general, antibodies purified from RespiGam showed higher neutralizing activity that those purified from Flebogamma, but those differences were higher with antibodies specific for certain protein segments than for others. Some of the protein regions recognized by human neutralizing antibodies were mapped outside antigenic sites identified previously with panels of murine monoclonal antibodies. These results offer the possibility of searching for new neutralizing antibodies that could be used to study the molecular basis of neutralization and to prevent HRSV infections. .COPYRGT. 2004 Elsevier Ltd. All rights reserved.

CONTROLLED TERM: Medical Descriptors:
*respiratory tract infection: ET, etiology
*respiratory tract infection: PC, prevention
Respiratory syncytial pneumovirus

virus neutralization
drug efficacy
prophylaxis
drug activity
human
controlled study
human cell
article
priority journal
Drug Descriptors:
*respiratory syncytial virus antibody: CM, drug comparison
*respiratory syncytial virus antibody: PD, pharmacology
*immunoglobulin: CM, drug comparison
*immunoglobulin: PD, pharmacology
CAS REGISTRY NO.: (immunoglobulin) 9007-83-4
CHEMICAL NAME: (1) Respigam; (2) Flebogamma
COMPANY NAME: (1) Medimmune (United States); **(2) Grifols (Spain)**

L173 ANSWER 85 OF 99 EMBASE
ACCESSION NUMBER: 2004210464 EMBASE
TITLE: Antiretrovirals, Part 1: Overview, History, and Focus on Protease Inhibitors.
AUTHOR: Wynn G.H.; Zapor M.J.; Smith B.H.; Wortmann G.; Oesterheld J.R.; Armstrong S.C.; Cozza K.L.
CORPORATE SOURCE: Dr. K.L. Cozza, Infectious Disease Service, Department of Medicine, Walter Reed Army Medical Center, 6900 Georgia Ave., Washington, DC 20307-5001, United States. kelly.cozza@na.amedd.army.mil
SOURCE: Psychosomatics, (2004) Vol. 45, No. 3, pp. 262-270. .
Refs: 68
ISSN: 0033-3182 CODEN: PSYCBC
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
030 Pharmacology
032 Psychiatry
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 4 Jun 2004
Last Updated on STN: 4 Jun 2004
ABSTRACT: This column is the first in a series on HIV/AIDS antiretroviral drugs. This first review summarizes the history of HIV/AIDS and the development of highly active antiretroviral therapy (HAART) and highlights why it is important for non-HIV specialists to know about these drugs. There are four broad classes of HIV medications used in varying combinations in HAART: the protease inhibitors, nucleoside analogue reverse transcriptase inhibitors, the non-nucleoside reverse transcriptase inhibitors, and cell membrane fusion inhibitors. This paper reviews the mechanism of action, side effects, toxicities, and drug interactions of the protease inhibitors.

CONTROLLED TERM: Medical Descriptors:
*acquired immune deficiency syndrome: DT, drug therapy
*Human immunodeficiency virus infection: DT, drug therapy
*highly active antiretroviral therapy
virus infection: DT, drug therapy
proteinase inhibition
gastrointestinal symptom: SI, side effect

nausea: SI, side effect
vomiting: SI, side effect
diarrhea: SI, side effect
appetite disorder: SI, side effect
side effect: SI, side effect
rhabdomyolysis: SI, side effect
lipodystrophy: SI, side effect
lipodystrophy: SU, surgery
hyperglycemia: SI, side effect
hyperlipidemia: DT, drug therapy
hyperlipidemia: SI, side effect
cardiovascular disease: SI, side effect
sexual dysfunction: DT, drug therapy
sexual dysfunction: SI, side effect
erectile dysfunction: DT, drug therapy
erectile dysfunction: SI, side effect
liver toxicity: SI, side effect
hyperbilirubinemia: SI, side effect
fatigue: SI, side effect
extrapyramidal symptom: SI, side effect
sedation
seizure: SI, side effect
coma: SI, side effect
mental disease: DT, drug therapy
mania: DT, drug therapy
drug alcohol interaction
food drug interaction
drug metabolism
liver transplantation
graft rejection: CO, complication
graft rejection: DT, drug therapy
graft rejection: PC, prevention
immunosuppressive treatment
drug contraindication
Cushing syndrome: SI, side effect
toxic hepatitis: SI, side effect
bleeding: SI, side effect
radiation enteropathy: CO, complication
radiation enteropathy: DT, drug therapy
lactic acidosis: SI, side effect
paresthesia: SI, side effect
Stevens Johnson syndrome: SI, side effect
taste disorder: SI, side effect
cheilitis: SI, side effect
dry eye: SI, side effect
xerostomia: SI, side effect
dry skin: SI, side effect
nephrolithiasis: SI, side effect
paronychia: SI, side effect
rash: SI, side effect
neutropenia: SI, side effect
leukocytoclastic vasculitis: SI, side effect
pancreatitis: SI, side effect
weight reduction
human
review

CONTROLLED TERM: Drug Descriptors:
*antiretrovirus agent: AE, adverse drug reaction
*antiretrovirus agent: CB, drug combination
*antiretrovirus agent: CM, drug comparison

*antiretrovirus agent: IT, drug interaction
*antiretrovirus agent: DT, drug therapy
*antiretrovirus agent: PK, pharmacokinetics
*antiretrovirus agent: PD, pharmacology
*proteinase inhibitor: AE, adverse drug reaction
*proteinase inhibitor: CB, drug combination
*proteinase inhibitor: CM, drug comparison
*proteinase inhibitor: IT, drug interaction
***proteinase inhibitor: DT, drug therapy**
*proteinase inhibitor: PK, pharmacokinetics
*proteinase inhibitor: PD, pharmacology
*atazanavir: AE, adverse drug reaction
*atazanavir: IT, drug interaction
*atazanavir: DT, drug therapy
*atazanavir: PK, pharmacokinetics
*lopinavir plus ritonavir: AE, adverse drug reaction
*lopinavir plus ritonavir: CB, drug combination
*lopinavir plus ritonavir: IT, drug interaction
*lopinavir plus ritonavir: DT, drug therapy
*lopinavir plus ritonavir: PK, pharmacokinetics
*lopinavir plus ritonavir: PD, pharmacology
*lopinavir: AE, adverse drug reaction
*lopinavir: CB, drug combination
*lopinavir: IT, drug interaction
*lopinavir: DT, drug therapy
*lopinavir: PK, pharmacokinetics
*lopinavir: PD, pharmacology
*ritonavir: AE, adverse drug reaction
*ritonavir: CB, drug combination
*ritonavir: IT, drug interaction
*ritonavir: DT, drug therapy
*ritonavir: PK, pharmacokinetics
*ritonavir: PD, pharmacology
antilipemic agent: AE, adverse drug reaction
antilipemic agent: CB, drug combination
antilipemic agent: IT, drug interaction
antilipemic agent: DT, drug therapy
hydroxymethylglutaryl coenzyme A reductase inhibitor: AE, adverse drug reaction
hydroxymethylglutaryl coenzyme A reductase inhibitor: CB, drug combination
hydroxymethylglutaryl coenzyme A reductase inhibitor: IT, drug interaction
hydroxymethylglutaryl coenzyme A reductase inhibitor: DT, drug therapy
simvastatin: AE, adverse drug reaction
simvastatin: CB, drug combination
simvastatin: IT, drug interaction
simvastatin: DT, drug therapy
atorvastatin: CB, drug combination
atorvastatin: CR, drug concentration
atorvastatin: IT, drug interaction
atorvastatin: DT, drug therapy
atorvastatin: PK, pharmacokinetics
pravastatin: CB, drug combination
pravastatin: IT, drug interaction
pravastatin: DT, drug therapy
sildenafil: CB, drug combination
sildenafil: IT, drug interaction
sildenafil: DT, drug therapy

vardenafil: CB, drug combination
vardenafil: IT, drug interaction
vardenafil: DT, drug therapy
tadalafil: CB, drug combination
tadalafil: IT, drug interaction
tadalafil: DT, drug therapy
immunosuppressive agent: AE, adverse drug reaction
immunosuppressive agent: CB, drug combination
immunosuppressive agent: IT, drug interaction
immunosuppressive agent: DT, drug therapy
tsukubaenolide: AE, adverse drug reaction
tsukubaenolide: CB, drug combination
tsukubaenolide: IT, drug interaction
tsukubaenolide: DT, drug therapy
rapamycin: AE, adverse drug reaction
rapamycin: CB, drug combination
rapamycin: IT, drug interaction
rapamycin: DT, drug therapy
amfebutamone: AE, adverse drug reaction
amfebutamone: IT, drug interaction
amfebutamone: PK, pharmacokinetics
risperidone: AE, adverse drug reaction
risperidone: CB, drug combination
risperidone: IT, drug interaction
risperidone: DT, drug therapy
risperidone: PK, pharmacokinetics
trazodone: AE, adverse drug reaction
trazodone: CB, drug combination
trazodone: CR, drug concentration
trazodone: IT, drug interaction
trazodone: DT, drug therapy
trazodone: PK, pharmacokinetics
zolpidem: AE, adverse drug reaction
zolpidem: CB, drug combination
zolpidem: IT, drug interaction
zolpidem: DT, drug therapy
zolpidem: PK, pharmacokinetics
budesonide: AE, adverse drug reaction
budesonide: CB, drug combination
budesonide: IT, drug interaction
budesonide: DT, drug therapy
budesonide: PK, pharmacokinetics
fluticasone propionate: AE, adverse drug reaction
fluticasone propionate: AD, drug administration
fluticasone propionate: CB, drug combination
fluticasone propionate: IT, drug interaction
fluticasone propionate: DT, drug therapy
fluticasone propionate: PK, pharmacokinetics
fluticasone propionate: IH, inhalational drug
administration
indinavir: AE, adverse drug reaction
indinavir: CB, drug combination
indinavir: IT, drug interaction
indinavir: DT, drug therapy
indinavir: PK, pharmacokinetics
nelfinavir: AE, adverse drug reaction
nelfinavir: CB, drug combination
nelfinavir: IT, drug interaction
nelfinavir: DT, drug therapy
nelfinavir: PK, pharmacokinetics

nelfinavir: PD, pharmacology
amprenavir: AE, adverse drug reaction
CONTROLLED TERM: Drug Descriptors:
amprenavir: IT, drug interaction
amprenavir: DT, drug therapy
amprenavir: PK, pharmacokinetics
saquinavir: AE, adverse drug reaction
saquinavir: IT, drug interaction
saquinavir: DT, drug therapy
saquinavir: PK, pharmacokinetics
amprenavir phosphate: AE, adverse drug reaction
amprenavir phosphate: IT, drug interaction
amprenavir phosphate: DT, drug therapy
amprenavir phosphate: PK, pharmacokinetics
glycoprotein P
unindexed drug
lexiva
CAS REGISTRY NO.: (proteinase inhibitor) 37205-61-1; (atazanavir) 198904-31-3; (lopinavir) 192725-17-0; (ritonavir) 155213-67-5; (simvastatin) 79902-63-9; (atorvastatin) 134523-00-5, 134523-03-8; (pravastatin) 81131-74-0; (sildenafil) 139755-83-2; (vardenafil) 224785-90-4, 224785-91-5, 224789-15-5; (tadalafil) 171596-29-5; (tsukubaenolide) 104987-11-3; (rapamycin) 53123-88-9; (amfebutamone) 31677-93-7, 34911-55-2; (risperidone) 106266-06-2; (trazodone) 19794-93-5, 25332-39-2; (zolpidem) 82626-48-0; (budesonide) 51333-22-3; (fluticasone propionate) 80474-14-2; (indinavir) 150378-17-9, 157810-81-6, 180683-37-8; (nelfinavir) 159989-64-7, 159989-65-8; (amprenavir) 161814-49-9; (saquinavir) 127779-20-8, 149845-06-7; (amprenavir phosphate) 226700-79-4, 226700-80-7, 226700-81-8
CHEMICAL NAME: Lexiva; Crixivan; Agenerase; Wellbutrin; Flovent; Entocort; Kaletra; Norvir; Reyataz; Viracept; Pravachol; Lipitor; Zocor; Cialis; Levitra; Viagra

L173 ANSWER 86 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004492410 EMBASE
TITLE: [Creation of a hospital guidebook of pharmaceutical compounds with latex content].
ELABORACION DE UNA GUIA HOSPITALARIA DE ESPECIALIDADES FARMACEUTICAS CON CONTENIDO EN LATEX.
AUTHOR: Jorge Vidal V.; Villamayor Blanco L.; Mira Sirvent Ma.C.; Rabell Inigo S.; Martinez Penella M.; Herrero Lopez Ma. J.; Martin Martin Ma.C.
CORPORATE SOURCE: V. Jorge Vidal, Servicio de Farmacia, Hopital Santa Ma del Rosell, Cartagena, Murcia, Spain
SOURCE: Atencion Farmaceutica, (2004) Vol. 6, No. 4, pp. 262-274. .
Refs: 9
ISSN: 1139-7357 CODEN: AFARFP
COUNTRY: Spain
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LANGUAGE: Spanish
SUMMARY LANGUAGE: English; Spanish

ENTRY DATE: Entered STN: 14 Apr 2005
Last Updated on STN: 14 Apr 2005

ABSTRACT: The significant increase in the number of latex allergies and the high consumption of medicines containing this compound in our hospital have led to the elaboration of a guide about the content of latex in medicines administered by parenteral route and intravenous fluids in order to increase drug safety of allergic patients. This guide was made by consultation with the technical departments of all pharmaceutical laboratories. The results are presented in tables showing the active principles or composition, the trade marks, pharmaceutical laboratory and the content of latex or not. This guide constitutes an effective measure to avoid the exposure of allergic patients to latex.

CONTROLLED TERM: Medical Descriptors:
*practice guideline
*consensus
drug hypersensitivity: PC, prevention
drug hypersensitivity: SI, side effect
drug utilization
chemical composition
drug safety
drug industry
pharmaceutics
clinical practice
clinical feature
hospital management
human
review

CONTROLLED TERM: Drug Descriptors:
*latex: AE, adverse drug reaction
*latex: PR, pharmaceutics
infusion fluid
abciximab: PR, pharmaceutics
abciximab: PA, parenteral drug administration
acetylcholine: PR, pharmaceutics
acetylcholine: PA, parenteral drug administration
aciclovir: PR, pharmaceutics
aciclovir: PA, parenteral drug administration
hyaluronic acid: PR, pharmaceutics
hyaluronic acid: PA, parenteral drug administration
zoledronic acid: PR, pharmaceutics
zoledronic acid: PA, parenteral drug administration
adenosine: PR, pharmaceutics
adenosine: PA, parenteral drug administration
albumin: PR, pharmaceutics
albumin: PA, parenteral drug administration
alpha 1 antitrypsin: PR, pharmaceutics
alpha 1 antitrypsin: PA, parenteral drug administration
amifostine: PR, pharmaceutics
amifostine: PA, parenteral drug administration
amikacin: PR, pharmaceutics
amikacin: PA, parenteral drug administration
amoxicillin plus clavulanic acid: PR, pharmaceutics
amoxicillin plus clavulanic acid: PA, parenteral drug administration
ampicillin: PR, pharmaceutics
ampicillin: PA, parenteral drug administration
sultamicillin: PR, pharmaceutics
sultamicillin: IM, intramuscular drug administration

sultamicillin: IV, intravenous drug administration
amphotericin B: PR, pharmaceutics
amphotericin B: IV, intravenous drug administration
amphotericin B lipid complex: PR, pharmaceutics
amphotericin B lipid complex: PA, parenteral drug administration
azathioprine: PR, pharmaceutics
azathioprine: PA, parenteral drug administration
aztreonam: PR, pharmaceutics
aztreonam: PA, parenteral drug administration
cefazolin: PR, pharmaceutics
cefazolin: PA, parenteral drug administration
cefotaxime: PR, pharmaceutics
cefotaxime: PA, parenteral drug administration
carmustine: PR, pharmaceutics
carmustine: PA, parenteral drug administration
caspofungin: PR, pharmaceutics
caspofungin: PA, parenteral drug administration
cefuroxime: PR, pharmaceutics
cefuroxime: PA, parenteral drug administration
cyclophosphamide: PR, pharmaceutics
cyclophosphamide: PA, parenteral drug administration
cidofovir: PR, pharmaceutics
cidofovir: PA, parenteral drug administration
cisplatin: PR, pharmaceutics
cisplatin: PA, parenteral drug administration
cladribine: PR, pharmaceutics
cladribine: PA, parenteral drug administration
cloxacillin: PR, pharmaceutics
cloxacillin: PA, parenteral drug administration
unindexed drug
acetilcolina cusi
inyesprin
domac
alteplase
fs 069
recombinant interleukin 2
prolastina
tyrpsone
radialar
meglumine diatrizoate
gobemicina
ampicilina ges
fungizona endovenosa
digitalis antidot
Pneumococcus vaccine
pnu inmune
recombinant hepatitis B vaccine
anbin
azithromycin
immucyst bcg inmunoterapia
BCG vaccine
vejicur
penbiot
penilevel
celestone cronodose
salcatonin
nitrourean
brizolina
kefol

cefoxitin
ceftazidime
rocefalin
ciprofloxacin
clarithromycin
normofenicol
clorazepate dipotassium
prothromplex immuno tim
soltrim 800 160
dalteparin
novel erythropoiesis stimulating protein
daunorubicin
deferoxamine mesylate
diltiazem
prepidil jer gel
docetaxel
doxorubicin
farmiblastina
drotrecogin
enfuvirtide
enoxaparin
adrenalina level 1 1000
epirubicin
recombinant erythropoietin
erythromycin ethylsuccinate
brevivloc
streptokinase
etanercept
blood clotting factor 8
blood clotting factor 8 concentrate
fanhdi
recombinant granulocyte colony stimulating factor

CONTROLLED TERM: Drug Descriptors:
fluconazole
loitin
beneflur
folidan
folinate calcium
fondaparinux
foscarnet sodium
fosfomycin
ganciclovir
gemcitabine
genta gobens
gemtuzumab ozogamicin
copaxona
glucagon gen hipokit
magnograf
leo
fibrilin
actocortina
tronoxal
imiglucerase
cilastatin plus imipenem
indometacin
infliximab
immunoglobulin
timoglobulina imtix
novomix 30 flexpen pluma
insulina insulatard nph

insulatard nph novolet
insulina mixtard
mixtard novolet
insulina monotard
insulina ultratard
actrapid novolet
actrapit
humalog mix 25 pluma
humalog mix 50 pluma
humalog npl pen pluma
intron a pluma
peginterferon alpha2a
peginterferon alpha2b
recombinant alpha2a interferon
beta1a interferon
interferon beta serine
omnigraf 300
iohexol
clarograf 240
meglumine iotroxate
ioversol
optiray ultraject
irinotecan
isoflurane
ketamine
euprotin
refludin
procin depot
procin trimestral
procin
levofloxacin
levothyroxine sodium
zyvodix
medroxyprogesterone acetate
meropenem
solu moderin
depo moderin
methylprednisolone
lederle
metronidazole
mitoxantrone
fraxiparina
fraxiparina forte
nimodipine
octreotide
superoxide dismutase
oxaliplatin
paclitaxel
palivizumab
pamidronic acid
linoten
pantocarm
perfalan
pentamidine isethionate
tazocel
procainamide
propofol
protamina leo
trh prem
raltitrexed

rasburicase
remifentanil
rifampicin
risperidone
rituximab
ropivacaine
silymarin
sumatriptan succinate
teicoplanin
tenecteplase
anestesico topico
pentothal sodico
agrastat
recombinant thyrotropin
tobramycin
topotecan
botulinum toxin A
anatoxal tedi berna
varicella zoster vaccine
trastuzumab
urokinase vedim
valproic acid
freamine hbc
nephramine
gelafundina
rheomacrodex glucosado
rheomacrodex salino
alanylglutamine
voluven
kabiven periferica
cernevit
primene
vamin

CONTROLLED TERM: Drug Descriptors:
soluvit

CAS REGISTRY NO.: (abciximab) 143653-53-6; (acetylcholine) 51-84-3, 60-31-1, 66-23-9; (aciclovir) 59277-89-3; (hyaluronic acid) 31799-91-4, 9004-61-9, 9067-32-7; (zoledronic acid) 118072-93-8, 131654-46-1, 165800-06-6, 165800-07-7; (adenosine) 58-61-7; (alpha 1 antitrypsin) 9041-92-3; (amifostine) 20537-88-6; (amikacin) 37517-28-5, 39831-55-5; (amoxicillin plus clavulanic acid) 74469-00-4; (ampicillin) 69-52-3, 69-53-4, 7177-48-2, 74083-13-9, 94586-58-0; (sultamicillin) 76497-13-7; (amphotericin B) 1397-89-3, 30652-87-0; (azathioprine) 446-86-6; (aztreonam) 78110-38-0; (cefazolin) 25953-19-9, 27164-46-1; (cefotaxime) 63527-52-6, 64485-93-4; (carmustine) 154-93-8; (caspofungin) 189768-38-5; (cefuroxime) 55268-75-2, 56238-63-2; (cyclophosphamide) 50-18-0; (cidofovir) 113852-37-2; (cisplatin) 15663-27-1, 26035-31-4, 96081-74-2; (cladribine) 4291-63-8; (cloxacillin) 61-72-3, 642-78-4; (alteplase) 105857-23-6; (recombinant interleukin 2) 110942-02-4; (meglumine diatrizoate) 131-49-7; (azithromycin) 83905-01-5; (salcatonin) 47931-85-1; (cefoxitin) 33564-30-6, 35607-66-0; (ceftazidime) 72558-82-8; (ciprofloxacin) 85721-33-1; (clarithromycin) 81103-11-9; (clorazepate dipotassium) 57109-90-7; (daunorubicin) 12707-28-7, 20830-81-3, 23541-50-6; (deferoxamine mesylate) 138-14-7, 5115-09-3; (diltiazem) 33286-22-5, 42399-41-7; (docetaxel) 114977-28-5;

(doxorubicin) 23214-92-8, 25316-40-9; (drotrecogin) 357194-87-7; (enfuvirtide) 159519-65-0; (enoxaparin) 9041-08-1; (epirubicin) 56390-09-1, 56420-45-2; (recombinant erythropoietin) 113427-24-0, 122312-54-3, 130455-76-4; (erythromycin ethylsuccinate) 1264-62-6; (streptokinase) 9002-01-1; (etanercept) 185243-69-0, 200013-86-1; (blood clotting factor 8) 9001-27-8; (recombinant granulocyte colony stimulating factor) 121181-53-1; (fluconazole) 86386-73-4; (folinate calcium) 1492-18-8, 51057-63-7; (fondaparinux) 104993-28-4, 114870-03-0; (foscarnet sodium) 63585-09-1; (fosfomycin) 23155-02-4; (ganciclovir) 82410-32-0; (gemcitabine) 103882-84-4; (imiglucerase) 154248-97-2; (cilastatin plus imipenem) 92309-29-0; (indometacin) 53-86-1, 74252-25-8, 7681-54-1; (infliximab) 170277-31-3; (immunoglobulin) 9007-83-4; (peginterferon alpha2a) 198153-51-4; (peginterferon alpha2b) 215647-85-1; (interferon beta serine) 90598-63-3; (iohexol) 66108-95-0; (meglumine iotroxate) 72704-51-9; (ioversol) 87771-40-2; (irinotecan) 100286-90-6; (isoflurane) 26675-46-7; (ketamine) 1867-66-9, 6740-88-1, 81771-21-3; (levofloxacin) 100986-85-4, 138199-71-0; (levothyroxine sodium) 55-03-8; (medroxyprogesterone acetate) 71-58-9; (meropenem) 96036-03-2; (methylprednisolone) 6923-42-8, 83-43-2; (metronidazole) 39322-38-8, 443-48-1; (mitoxantrone) 65271-80-9, 70476-82-3; (nimodipine) 66085-59-4; (octreotide) 83150-76-9; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1; (oxaliplatin) 61825-94-3; (paclitaxel) 33069-62-4; (palivizumab) 188039-54-5; (pamidronic acid) 40391-99-9, 57248-88-1; (pentamidine isethionate) 140-64-7; (procainamide) 51-06-9, 614-39-1; (propofol) 2078-54-8; (raltitrexed) 112887-68-0; (rasburicase) 352311-12-7; (remifentanil) 132539-07-2; (rifampicin) 13292-46-1; (risperidone) 106266-06-2; (rituximab) 174722-31-7; (ropivacaine) 84057-95-4; (silymarin) 65666-07-1; (sumatriptan succinate) 103628-48-4; (teicoplanin) 61036-62-2, 61036-64-4; (tenecteplase) 191588-94-0; (recombinant thyrotropin) 194100-83-9; (tobramycin) 32986-56-4; (topotecan) 119413-54-6, 123948-87-8; (botulinum toxin A) 93384-43-1; (trastuzumab) 180288-69-1; (valproic acid) 1069-66-5, 99-66-1; (alanylglutamine) 39537-23-0; (vamin) 81099-37-8

CHEMICAL NAME: (1) Reopro; (2) Acetilcolina cusi; (3) Inyesprin; (4) Domac; (5) Adant; (6) Hyalgan; (7) Zometa; (8) Actilyse; (9) Adenocor; (10) Optison; (11) Proleukin; (12) Prolastina; (13) Tyrpsone; (14) Radialar; (15) Urografin; (16) Uroangiografin; (17) Ethyol; (18) Augmentin; (19) Gobemicina; (20) Ampicilina ges; (21) Unasyn; (22) Fungizona endovenosa; (23) Abelcet; (24) Ambisome; (25) Digitalis antidot; (26) Pneumo 23; (27) Pnu inmune; (28) Engerix b; (29) Anbin; (30) Imurel; (31) Zitromax; (32) Azactam; (33) Immucyst bcg inmunoterapia; (34) Oncotice; (35) Vejicur; (36) Penbiot; (37) Penilevel; (38) Celestone cronodose; (39) Calsynar; (40) Nitrourean; (41) Cancidas; (42) Kurgan; (43) Brizolina; (44) Kefol; (45) Mefoxitin; (46) Fortam; (47) Rocefalin; (48) Curoxima; (49) Genoxal; (50) Vistide; (51) Rigoran; (52) Baycip; (53) Leustatin; (54) Klacid; (55) Bremon; (56) Normofenicol; (57) Tranxilium; (58) Orbenin; (59) Prothromplex immuno tim; (60) Soltrim 800 160; (61) Fragmin; (62) Aranesp; (63)

Daunoxome; (64) Daunoblastina; (65) Desferin; (66) Masdil; (67) Prepidil jer gel; (68) Taxotere; (69) Caelyx; (70) Farmiblastina; (71) Xigris; (72) Fuzeon; (73) Clexane; (74) Adrenalina level 1 1000; (75) Farmorubicina; (76) Eprex; (77) Pantomicina; (78) Brevivloc; (79) Streptase; (80) Enbrel; (81) Haemate p; (82) Hemofil m; (83) Fanhdi; (84) Neupogen; (85) Diflucan; (86) Loitin; (87) Beneflur; (88) Folidan; (89) Lederfolin; (90) Arixtra; (91) Foscavir; (92) Fosfocina; (93) Cymevene; (94) Gemzar; (95) Genta gobens; (96) Mylotarg; (97) Copaxona; (98) Glucagon gen hipokit; (99) Magnograf; (100) Leo; (101) Fibrilin; (102) Actocortina; (103) Tronoxal; (104) Cerezyme; (105) Tienam; (106) Inacid; (107) Remicade; (108) Endobulin; (109) Flebogamma; (110) Timoglobulina imtix; (111) Novomix 30 flexpen pluma; (112) Insulina insulatard nph; (113) Insulatard nph novolet; (114) Insulina mixtard; (115) Mixtard novolet; (116) Insulina monotard; (117) Insulina ultratard; (118) Actrapid novolet; (119) Actrapit; (120) Humalog mix 25 pluma; (121) Humalog mix 50 pluma; (122) Humalog npl pen pluma; (123) Intron a pluma; (124) Pegasys; (125) Pegintron; (126) Roferon a; (127) Avonex; (128) Rebif; (129) Betaferon; (130) Omnigraf 300; (131) Omnitrast 300; (132) Clarograf 240; (133) Bilisegrol; (134) Optiray; (135) Optiray ultraject; (136) Campto; (137) Forane; (138) Ketolar; (139) Euprotin; (140) Refludin; (141) Procin depot; (142) Procin trimestral; (143) Procin; (144) Tavanic; (145) Levothroid; (146) Zyvodix; (147) Farlutal depot; (148) Meronem; (149) Solu moderin; (150) Depo moderin; (151) Urbason; (152) Lederle; (153) Flagyl; (154) Novantrone; (155) Fraxiparina; (156) Fraxiparina forte; (157) Nimotop; (158) Sandostatin; (159) Ontosein; (160) Eloxatin; (161) Taxol; (162) Synagis; (163) Aredia; (164) Linoten; (165) Pantocarm; (166) Perfalan; (167) Neulasta; (168) Pentacarinat; (169) Tazocel; (170) Biocoryl; (171) Diprivan; (172) Protamina leo; (173) Trh prem; (174) Tomudex; (175) Fasturtec; (176) Ultiva; (177) Rifaldin; (178) Risperdal consta; (179) Mabthera; (180) Naropin; (181) Legalon; (182) Imigran; (183) Targocid; (184) Metalyse; (185) Anestesico topico; (186) Pentothal sodico; (187) Agrastat; (188) Thyrogen; (189) Tobra gobens; (190) Hycamtin; (191) Botox; (192) Anatoxal tedi berna; (193) Varilrix; (194) Herceptin; (195) Urokinase vedim; (196) Prevenar; (197) Depakine; (198) Freamine hbc; (199) Nephramine; (200) Gelafundina; (201) Rheomacrodex glucosado; (202) Rheomacrodex salino; (203) Dipeptiven; (204) Voluven; (205) Kabiven periferica; (206) Cernevit; (207) Primene; (208) Vamin; (209) Soluvit

COMPANY NAME: (2) Alcon cusi (Spain); (3) Gruenenthal (Spain); (6) Iberica; (10) Amersham (Spain); (11) Chiron (Spain); (20) GES Genericos (Spain); (21) Farmasierra (Spain); **(23) Elan (Spain)**; (26) Aventis Pasteur (Spain); (30) Celltech; (33) Inibsa (Spain)

COMPANY NAME: (34) Organon (Spain); (55) Pen (Spain); (63) Gilead (Spain); (66) Esteve (Spain); (81) Aventis Behring (Spain); (86) Lesvi (Spain); (92) ERN (Spain); **(109) Grifols (Spain)**; (110) Imtix Sangstat (Spain); (119) Novo Nordisk (Spain); (122) Lilly; (127) Schering Plough (Spain); (128) Serono (Spain); (132) Juste (Spain); (133) Schering (Spain); (135) Tyco Healthcare (Spain); (139) Almirall Prodesfarma (Spain); (140) Pharmion (Spain); (150)

Pfizer (Spain); (157) Bayer (Spain); (159) Tedec Meiji (Spain); (164) Rovi (Spain); (166) Bristol Myers Squibb (Spain); (167) Amgen (Spain); (170) Uriach (Spain); (172) Altana (Spain); (173) Novartis (Spain); (178) Janssen Cilag (Spain); (180) Astra Zeneca (Spain); (181) Madaus Cerafarm (Spain); (183) Aventis (Spain); (184) Boehringer Ingelheim (Spain); (186) Abbott (Spain); (187) Merck Sharp and Dohme (Spain); (188) Genzyme (Spain); (189) Normon (Spain); (191) Allergan (Spain); (192) Berna (Spain); (193) Glaxo SmithKline; (194) Hoffmann La Roche (Spain); (195) UCB (Spain); (196) Wyeth (Spain); (197) Sanofi Synthelabo (Spain); (200) Braun (Spain); (207) Baxter (Spain); (209) Fresenius Kabi (Spain); Combino (Spain); Ips (Spain); Ferrer (Spain); Frexenius Mein (Spain)

L173 ANSWER 87 OF 99 EMBASE

ACCESSION NUMBER: 2003163081 EMBASE

TITLE: Management of heparin resistance during cardiopulmonary bypass: The effect of five different anticoagulation strategies on hemostatic activation.

AUTHOR: Koster A.; Fischer T.; Gruendel M.; Mappes A.; Kuebler W.M.; Bauer M.; Kuppe H.

CORPORATE SOURCE: Dr. A. Koster, Deutsches Herzzentrum Berlin, Augustenburger Platz 1, 13353 Berlin, Germany. Koster@dhzb.de

SOURCE: Journal of Cardiothoracic and Vascular Anesthesia, (2003) Vol. 17, No. 2, pp. 171-175. .
Refs: 17
ISSN: 1053-0770 CODEN: JCVAEK

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
024 Anesthesiology
025 Hematology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 9 May 2003
Last Updated on STN: 9 May 2003

ABSTRACT: Objective: Attenuation of hemostatic activation is a central goal during CPB. However, this poses a problem in patients insensitive to heparin. The present investigation was performed to assess different strategies of managing patients with heparin resistance during CPB. Design: A randomized, prospective clinical investigation. Setting: A major European heart center. Participants: Five groups with 20 patients each were investigated. Interventions: The groups were handled as follows: (1) maintenance of a target ACT, (2) maintenance of the target unfractionated heparin (UFH) level and supplementation of a UFH level-based strategy with (3) AT III, (4) the direct thrombin inhibitor r-hirudin, or (5) the short-acting platelet ***glycoprotein*** (GP) IIb/IIIa antagonist tirofiban. Platelet count and generation of contact factor XIIa, thrombin, and soluble fibrin were assessed. Samples were obtained before CPB and after CPB before protamine infusion. Measurements and Main Results: There were no differences observed in the generation of factor XIIa. The UFH-based strategy and supplementation with AT III, r-hirudin, and tirofiban resulted in significantly reduced ($p < 0.05$) thrombin generation compared with ACT management. A significant reduction of fibrin formation was seen only in patients who received AT III, r-hirudin, or tirofiban supplementation to the UFH. The administration of tirofiban resulted in a significant preservation of the platelet count compared with the other groups. There were no significant differences in the postoperative blood loss.

Conclusions: Activation of hemostasis during CPB in heparin-resistant patients most likely has to be attributed to stimulation of the tissue factor pathway. Even the sole use of high concentrations of UFH does not effectively inhibit this activation. Therefore, in these patients anticoagulation during CPB with UFH should be supplemented with either AT III, a short-acting direct thrombin inhibitor, or a short-acting platelet **glycoprotein** IIb/IIIa antagonist.

CONTROLLED TERM: Medical Descriptors:
*anticoagulation
*cardiopulmonary bypass
*hemostasis
blood clotting time
maintenance therapy
fibrin formation
postoperative hemorrhage: CO, complication
drug megadose
human
male
female
major clinical study
clinical trial
randomized controlled trial
controlled study
aged
adult
article
priority journal
Drug Descriptors:
*heparin: CT, clinical trial
*heparin: DO, drug dose
thrombin inhibitor: CT, clinical trial
hirudin: CT, clinical trial
antithrombin III: CT, clinical trial
fibrinogen receptor antagonist: CT, clinical trial
tirofiban: CT, clinical trial
blood clotting factor 12a: EC, endogenous compound
thrombin: EC, endogenous compound
fibrin: EC, endogenous compound
protamine: CT, clinical trial
thromboplastin: EC, endogenous compound
lepirudin

CAS REGISTRY NO.: (heparin) 37187-54-5, 8057-48-5, 8065-01-8, 9005-48-5; (hirudin) 8001-27-2; (antithrombin III) 90170-80-2; (tirofiban) 142373-60-2, 144494-65-5, 150915-40-5; (thrombin) 9002-04-4; (fibrin) 9001-31-4; (protamine) 11061-43-1, 9007-31-2, 9012-00-4; (thromboplastin) 9035-58-9; (lepirudin) 138068-37-8

CHEMICAL NAME: (1) Refludan; (2) Aggrastat; Hepcon

COMPANY NAME: (1) Aventis (Germany); (2) Merck Sharp and Dohme (Germany); **Grifols (Germany)**

L173 ANSWER 88 OF 99 EMBASE

ACCESSION NUMBER: 2003412040 EMBASE

TITLE: Shifting paradigms: Biopharmaceuticals versus low **molecular weight** drugs.

AUTHOR: Crommelin D.J.A.; Storm G.; Verrijk R.; De Leede L.; Jiskoot W.; Hennink W.E.

CORPORATE SOURCE: D.J.A. Crommelin, Department of Pharmaceutics, Utrecht

Inst. Pharmaceutical Sci., UIPS, Utrecht TB 3508, Netherlands. D.J.A.Crommelin@pharm.uu.nl
SOURCE: International Journal of Pharmaceutics, (6 Nov 2003) Vol. 266, No. 1-2, pp. 3-16. .
Refs: 30
ISSN: 0378-5173 CODEN: IJPHDE
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 30 Oct 2003
Last Updated on STN: 30 Oct 2003

ABSTRACT: Biopharmaceuticals are pharmaceutical products consisting of (glyco)proteins. Nowadays a substantial part of the FDA-approved drugs belong to this class of drugs. Biopharmaceuticals deserve special attention as they have a number of characteristics that set them aside from low **molecular** ***weight*** drugs. Their activity depends on their complicated shape based on secondary, tertiary and (sometimes) quaternary structures. These structures cannot be fully defined with our present set of analytical techniques and approaches for potency testing. They often are the same as (or closely resemble) endogenous proteins. This means that in safety testing and clinical test programs questions have to be addressed regarding species specific responses, selection of dosing schedules and route of administration, and the possible occurrence of immunogenicity. As the conformational structure of a protein is easily disturbed, formulation and handling of biopharmaceuticals needs special attention in order to optimize the therapeutic effect and minimize adverse reaction, among which immune responses. The issue of biogenerics is gaining more and more interest and different critical elements in the development of biogenerics are touched upon. In conclusion, biopharmaceuticals cannot be characterized fully in terms of their structure like low **molecular weight** drugs. The performance of biopharmaceuticals relies on strict production protocols and close monitoring of their activity in the clinical situation. .COPYRGT. 2003 Published by Elsevier B.V.

CONTROLLED TERM: Medical Descriptors:
*pharmacy
molecular weight
food and drug administration
drug activity
drug structure
drug potency
drug safety
immunogenicity
conformation
drug effect
immune response
drug monitoring
side effect: SI, side effect
thrombocytopenia: SI, side effect
diabetes mellitus: DT, drug therapy
drug formulation
human
nonhuman
review

priority journal
CONTROLLED TERM: Drug Descriptors:
*glycoprotein: AE, adverse drug reaction
***glycoprotein: AD, drug administration**
***glycoprotein: DT, drug therapy**
*glycoprotein: PR, pharmaceutics
***glycoprotein: PK, pharmacokinetics**
***glycoprotein: PD, pharmacology**
*glycoprotein: IV, intravenous drug administration
*glycoprotein: PO, oral drug administration
*glycoprotein: SC, subcutaneous drug administration
abciximab: PR, pharmaceutics
abciximab: PK, pharmacokinetics
abciximab: PD, pharmacology
abciximab: SC, subcutaneous drug administration
pertussis vaccine: AD, drug administration
pertussis vaccine: PR, pharmaceutics
pertussis vaccine: PK, pharmacokinetics
pertussis vaccine: PD, pharmacology
pertussis vaccine: SC, subcutaneous drug administration
recombinant interleukin 2: PR, pharmaceutics
recombinant interleukin 2: PK, pharmacokinetics
recombinant interleukin 2: PD, pharmacology
recombinant interleukin 2: SC, subcutaneous drug administration
alteplase: PR, pharmaceutics
alteplase: PK, pharmacokinetics
alteplase: PD, pharmacology
alteplase: SC, subcutaneous drug administration
recombinant blood clotting factor 8: PR, pharmaceutics
recombinant blood clotting factor 8: PK, pharmacokinetics
recombinant blood clotting factor 8: PD, pharmacology
recombinant blood clotting factor 8: SC, subcutaneous drug administration
basiliximab: PR, pharmaceutics
basiliximab: PK, pharmacokinetics
basiliximab: PD, pharmacology
basiliximab: SC, subcutaneous drug administration
daclizumab: PR, pharmaceutics
daclizumab: PK, pharmacokinetics
daclizumab: PD, pharmacology
daclizumab: SC, subcutaneous drug administration
denileukin diftitox: PR, pharmaceutics
denileukin diftitox: PK, pharmacokinetics
denileukin diftitox: PD, pharmacology
denileukin diftitox: SC, subcutaneous drug administration
deoxyribonuclease: PR, pharmaceutics
deoxyribonuclease: PK, pharmacokinetics
deoxyribonuclease: PD, pharmacology
deoxyribonuclease: SC, subcutaneous drug administration
etanercept: PR, pharmaceutics
etanercept: PK, pharmacokinetics
etanercept: PD, pharmacology
etanercept: SC, subcutaneous drug administration
recombinant erythropoietin: AE, adverse drug reaction
recombinant erythropoietin: PR, pharmaceutics
recombinant erythropoietin: PK, pharmacokinetics
recombinant erythropoietin: PD, pharmacology
recombinant erythropoietin: SC, subcutaneous drug administration

eptifibatide: PR, pharmaceutics
eptifibatide: PK, pharmacokinetics
eptifibatide: PD, pharmacology
eptifibatide: SC, subcutaneous drug administration
recombinant granulocyte colony stimulating factor: PR, pharmaceutics
recombinant granulocyte colony stimulating factor: PK, pharmacokinetics
recombinant granulocyte colony stimulating factor: PD, pharmacology
recombinant granulocyte colony stimulating factor: SC, subcutaneous drug administration
blood clotting factor 7: PR, pharmaceutics
blood clotting factor 7: PK, pharmacokinetics
blood clotting factor 7: PD, pharmacology
blood clotting factor 7: SC, subcutaneous drug administration
blood clotting factor 9: PR, pharmaceutics
blood clotting factor 9: PK, pharmacokinetics
blood clotting factor 9: PD, pharmacology
blood clotting factor 9: SC, subcutaneous drug administration
follitropin: PR, pharmaceutics
follitropin: PK, pharmacokinetics
follitropin: PD, pharmacology
follitropin: SC, subcutaneous drug administration
ganirelix: PR, pharmaceutics
ganirelix: PK, pharmacokinetics
ganirelix: PD, pharmacology
ganirelix: SC, subcutaneous drug administration
gemtuzumab ozogamicin: PR, pharmaceutics
gemtuzumab ozogamicin: PK, pharmacokinetics
gemtuzumab ozogamicin: PD, pharmacology
gemtuzumab ozogamicin: SC, subcutaneous drug administration
glatiramer: PR, pharmaceutics
glatiramer: PK, pharmacokinetics
glatiramer: PD, pharmacology
glatiramer: SC, subcutaneous drug administration
glucagon: PR, pharmaceutics
glucagon: PK, pharmacokinetics
glucagon: PD, pharmacology
glucagon: SC, subcutaneous drug administration
growth hormone releasing factor: PR, pharmaceutics
growth hormone releasing factor: PK, pharmacokinetics
growth hormone releasing factor: PD, pharmacology
growth hormone releasing factor: SC, subcutaneous drug administration
hepatitis B vaccine: AD, drug administration
hepatitis B vaccine: PR, pharmaceutics
hepatitis B vaccine: PK, pharmacokinetics
hepatitis B vaccine: PD, pharmacology
imiglucerase: PR, pharmaceutics
imiglucerase: PK, pharmacokinetics
imiglucerase: PD, pharmacology
imiglucerase: SC, subcutaneous drug administration
infliximab: PR, pharmaceutics
infliximab: PK, pharmacokinetics
infliximab: PD, pharmacology
infliximab: SC, subcutaneous drug administration
insulin: DT, drug therapy

insulin: PR, pharmaceutics
insulin: PK, pharmacokinetics
insulin: PD, pharmacology
insulin: SC, subcutaneous drug administration
alpha interferon: PR, pharmaceutics
alpha interferon: PK, pharmacokinetics
alpha interferon: PD, pharmacology
alpha interferon: SC, subcutaneous drug administration
alpha interferon C: PR, pharmaceutics
alpha interferon C: PK, pharmacokinetics
alpha interferon C: PD, pharmacology
alpha interferon C: SC, subcutaneous drug administration
CONTROLLED TERM: Drug Descriptors:
beta interferon: PR, pharmaceutics
beta interferon: PK, pharmacokinetics
beta interferon: PD, pharmacology
beta interferon: SC, subcutaneous drug administration
unindexed drug
CAS REGISTRY NO.: (abciximab) 143653-53-6; (recombinant interleukin 2) 110942-02-4; (alteplase) 105857-23-6; (denileukin diftitox) 173146-27-5; (deoxyribonuclease) 37211-67-9; (etanercept) 185243-69-0, 200013-86-1; (recombinant erythropoietin) 113427-24-0, 122312-54-3, 130455-76-4; (eptifibatide) 148031-34-9; (recombinant granulocyte colony stimulating factor) 121181-53-1; (blood clotting factor 7) 9001-25-6; (blood clotting factor 9) 9001-28-9; (follitropin) 9002-68-0; (ganirelix) 123246-29-7, 124904-93-4, 129311-55-3; (glatiramer) 147245-92-9, 28704-27-0; (glucagon) 11140-85-5, 62340-29-8, 9007-92-5; (growth hormone releasing factor) 83930-13-6, 9034-39-3; (imiglucerase) 154248-97-2; (infliximab) 170277-31-3; (insulin) 9004-10-8

L173 ANSWER 89 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2003079159 EMBASE
TITLE: Beta cell-specific CD80 (B7-1) expression disrupts tissue protection from autoantigen-specific CTL-mediated diabetes.
AUTHOR: Pechhold K.; Karges W.; Blum C.; Boehm B.O.; Harlan D.M.
CORPORATE SOURCE: K. Pechhold, NIDDK Transplant./Autoimmunity Br., NNMC/AFRRI Building 46, 8901 Wisconsin Avenue, Bethesda, MD 20889, United States. klausp@intra.niddk.nih.gov
SOURCE: Journal of Autoimmunity, (2003) Vol. 20, No. 1, pp. 1-13. .
Refs: 61
ISSN: 0896-8411 CODEN: JOAUEP
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Feb 2003
Last Updated on STN: 27 Feb 2003
ABSTRACT: T cell responses toward pancreatic beta cell autoantigens arise spontaneously or on immunization in many mouse strains, yet sustained islet infiltration and progressive diabetes rarely ensues. Most mouse diabetes models overcome the innocuous coexistence of anti-islet specific T cells and endogenous islets via incompletely understood mechanisms (e.g. the spontaneous disease onset of the non-obese diabetic mouse) or depend on overwhelming

numbers of peripheral islet-specific T cells. We report that insulin promoter murine CD80 (RIP-CD80) transgenic mice are extraordinarily susceptible to autoantigen-induced diabetes, while spontaneous disease is rare. Autoimmunity to the pancreatic beta cell-expressed glycoprotein (GP) of the lymphocytic choriomeningitis virus (LCMV) was elicited by a single injection of syngeneic fibroblastoid cell lines (FCL) loaded with the immunodominant LCMV-GP peptide, gp33. While both RIP-GP(+)and RIP-CD80(+)GP(+)mice mounted moderate CD4-independent CTL responses, only CD80(+)GP(+)mice developed severe insulitis and diabetes due to islet-infiltration of activated, gp33-specific, CD8(+)T cells. Strikingly, DNA immunization using plasmids encoding LCMV-GP or murine preproinsulin also efficiently induced Ag-specific RIP-CD80-dependent diabetes. We conclude that aberrant CD80-expression in a peripheral tissue disrupts that tissue's natural resistance to CD8 T cell-mediated autoimmune destruction. This rodent model thus represents a novel approach to identify beta cell-derived autoantigenic determinants involved in the pathogenesis of autoimmune diabetes, and may also serve as a prototype approach to uncover relevant autoantigens leading to a variety of organ-specific autoimmune disorders.

CONTROLLED TERM: Medical Descriptors:
***diabetes mellitus: DT, drug therapy**
*diabetes mellitus: PC, prevention
protein expression
pancreas islet beta cell
disease course
promoter region
transgenic mouse
autoimmunity
Lymphocytic choriomeningitis virus
fibroblast
cell line
antigen specificity
immunization
nonhuman
mouse
animal model
controlled study
animal cell
article
nucleotide sequence
priority journal
Drug Descriptors:
*autoantigen: EC, endogenous compound
*B7 antigen: EC, endogenous compound
glycoprotein: EC, endogenous compound
preproinsulin: EC, endogenous compound
plasmid DNA: DT, drug therapy
lymphocytic choriomeningitis virus glycoprotein: DT, drug therapy
CD4 antigen: EC, endogenous compound
unclassified drug
CAS REGISTRY NO.: (preproinsulin) 61116-24-3
GENE NUMBER: GENBANK X04724 referred number

L173 ANSWER 90 OF 99 EMBASE
ACCESSION NUMBER: 2002268960 EMBASE
TITLE: Human antibodies against amyloid β peptide: A potential treatment for Alzheimer's disease.
AUTHOR: Dodel R.; Hampel H.; Depboylu C.; Lin S.; Gao F.; Schock

S.; Jackel S.; Wei X.; Buerger K.; Hoft C.; Hemmer B.; Moller H.-J.; Farlow M.; Oertel W.H.; Sommer N.; Du Y.
CORPORATE SOURCE: Dr. R. Dodel, Department of Neurology, Philipps University, Rudolf-Bultmann Strasse 8, 35039 Marburg, Germany. dodel@mailer.uni-marburg.de
SOURCE: Annals of Neurology, (2002) Vol. 52, No. 2, pp. 253-256. .
Refs: 20
ISSN: 0364-5134 CODEN: ANNED3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 5 Sep 2002
Last Updated on STN: 5 Sep 2002
ABSTRACT: Naturally occurring antibodies directed against β-amyloid (Aβ) were detected in intravenous immunoglobulin preparations. After intravenous immunoglobulin treatment in patients with different neurological diseases, total Aβ and Aβ(1-42) in the cerebrospinal fluid was reduced significantly compared with baseline values. In the serum, total Aβ levels increased after intravenous immunoglobulin treatment, whereas no significant change was observed in Aβ(1-42) levels. Antibodies against Aβ were found to be increased in the serum and cerebrospinal fluid after intravenous immunoglobulin treatment. This study provides evidence that intravenous immunoglobulin or purified Aβ antibodies may modify Aβ and Aβ(1-42) levels, suggesting potential utility as a therapy for Alzheimer disease.

CONTROLLED TERM: Medical Descriptors:
*antibody detection
*Alzheimer disease: DI, diagnosis
peptide analysis
neurologic disease: DT, drug therapy
cerebrospinal fluid examination
protein cerebrospinal fluid level
reference value
protein purification
protein modification
diagnostic value
human
male
female
clinical article
aged
adult
article
priority journal
Drug Descriptors:
***amyloid beta protein: EC, endogenous compound**
*immunoglobulin: DT, drug therapy
*immunoglobulin: PR, pharmaceutics
*immunoglobulin: IV, intravenous drug administration
immunoglobulin G
CAS REGISTRY NO.: (amyloid beta protein) 109770-29-8; (immunoglobulin) 9007-83-4; (immunoglobulin G) 97794-27-9
CHEMICAL NAME: (1) Octagam; (2) Flebogamma
COMPANY NAME: (1) Octapharma (Germany); **(2) Grifols**

L173 ANSWER 91 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2001436263 EMBASE
TITLE: Antithrombin III prevents early pulmonary dysfunction after lung transplantation in the dog.
AUTHOR: Salvatierra A.; Guerrero R.; Rodriguez M.; Alvarez A.; Soriano F.; Lopez-Pedrera R.; Ramirez R.; Carracedo J.; Lopez-Rubio F.; Lopez-Pujol J.; Velasco F.
CORPORATE SOURCE: Dr. M. Rodriguez, Unidad de Investigacion, Hospital Univ. Reina Sofia, Avda Menendez Pidal s/n, 14004-Cordoba, Spain. mrodriguez@sofia.hrs.sas.cica.es
SOURCE: Circulation, (11 Dec 2001) Vol. 104, No. 24, pp. 2975-2980.
.
Refs: 24
ISSN: 0009-7322 CODEN: CIRCAZ
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 009 Surgery
015 Chest Diseases, Thoracic Surgery and Tuberculosis
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 10 Jan 2002
Last Updated on STN: 10 Jan 2002

ABSTRACT: Background - Ischemia-reperfusion injury with the resulting inflammatory response is a devastating complication of lung transplantation; much of the tissue damage could be diminished by control of the inflammatory response. Recent studies have show that antithrombin III (AT III) has an anti-inflammatory effect in addition to its established role in the regulation of blood coagulation. Thus, we hypothesized that the administration of AT III might help to prevent ischemia-reperfusion injury after lung transplantation. Methods and Results - The study was performed in a dog model of orthotopic lung transplantation. Dogs were randomly assigned to receive either vehicle (controls) or AT III. We observed that in control dogs, during the 180-minute period after lung transplantation, the arterial O(2) partial pressure decreased and both the alveolar-arterial O(2) difference and the pulmonary vascular resistance increased. By contrast, these parameters remained unchanged in the group of dogs receiving AT III. Dogs with transplants receiving AT III did not show an increase in cell adhesion molecules, and histological examination revealed almost an absence of inflammatory response. The administration of AT III produced a marked increase in serum prostacyclin (PGI(2)) levels, whereas in control dogs, the PGI(2) levels did not change. The beneficial effect of AT III was not observed when dogs received indomethacin to prevent the stimulation of PGI(2) release by AT III. Conclusions - Our results demonstrate that AT III prevents ischemia-reperfusion injury in a dog model of lung transplantation and that this effect is conditioned by an increase in PGI(2) production.

CONTROLLED TERM: Medical Descriptors:
*lung transplantation
*lung perfusion
*ischemia: CO, complication
*ischemia: DT, drug therapy
*ischemia: PC, prevention
*lung disease: CO, complication
*lung disease: DT, drug therapy
*lung disease: PC, prevention
reperfusion injury: CO, complication
reperfusion injury: DT, drug therapy
reperfusion injury: PC, prevention

arterial oxygen tension
lung alveolus
lung vascular resistance
gas exchange
hemodynamics
protein expression
mononuclear cell
nonhuman
animal experiment
controlled study
animal cell
article
priority journal
Drug Descriptors:
*antithrombin III: CB, drug combination
*antithrombin III: DT, drug therapy
indometacin: CB, drug combination
indometacin: IV, intravenous drug administration
cell adhesion molecule: EC, endogenous compound
prostaglandin: EC, endogenous compound
CAS REGISTRY NO.: (antithrombin III) 90170-80-2; (indometacin) 53-86-1, 74252-25-8, 7681-54-1
COMPANY NAME: **Grifols**

L173 ANSWER 92 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2001202022 EMBASE
TITLE: Mucosal administration of IL-10 enhances oral tolerance in autoimmune encephalomyelitis and diabetes.
AUTHOR: Slavin A.J.; Maron R.; Weiner H.L.
CORPORATE SOURCE: H.L. Weiner, Center for Neurologic Diseases, Brigham and Women's Hospital, Harvard Medical School, 77 Avenue Louis Pasteur, Boston, MA 02115, United States
SOURCE: International Immunology, (2001) Vol. 13, No. 6, pp. 825-833. .
Refs: 59
ISSN: 0953-8178 CODEN: INIMEN
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
008 Neurology and Neurosurgery
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 10 Jul 2001
Last Updated on STN: 10 Jul 2001

ABSTRACT: IL-10 is an immunoregulatory cytokine that can modulate immune processes, inhibiting the expression of inflammatory T(h)1 type responses as well as affecting antigen-presenting cell function. In addition, IL-10 has been shown to be active at mucosal surfaces. In the present study, we examined the role of IL-10 on orally and nasally induced tolerance. Treatment of (PL/J x SJL)F(1) mice with low-dose oral myelin basic protein (MBP) (0.5 mg) and simultaneous oral IL-10 given 3 times reduced the severity and incidence of experimental autoimmune encephalomyelitis (EAE), whereas administration of oral IL-10 alone or MBP alone given in these doses had no effect. Lymphocytes from mice treated orally with MBP and IL-10 proliferated less, and produced decreased amounts of IFN-γ and IL-2 and increased amounts of IL-10 and transforming growth factor-β upon in vitro stimulation with MBP. Nasal administration of antigen and IL-10 reduced proliferative responses and

IFN-γ production, increased IL-10 production, and enhanced protection from EAE. In addition, oral IL-10 combined with oral myelin oligodendrocyte glycoprotein (MOG) 35-55 reduced relapses in MOG-induced EAE in the NOD mouse, as well as enhanced the protective effect of oral insulin in the NOD model of diabetes. These results demonstrate that IL-10 is biologically active at mucosal surfaces and can act synergistically to enhance the tolerogenic effects of mucosally administered antigen.

CONTROLLED TERM: Medical Descriptors:
*allergic encephalomyelitis: DT, drug therapy
***diabetes mellitus: DT, drug therapy**
drug tolerability
immunoregulation
mucosa
Th1 cell
antigen presenting cell
cell function
dose response
disease severity
incidence
lymphocyte proliferation
in vitro study
relapse: DT, drug therapy
drug activity
drug potentiation
nonhuman
female
mouse
animal experiment
animal model
controlled study
animal cell
article
priority journal
Drug Descriptors:
*interleukin 10: AD, drug administration
*interleukin 10: CB, drug combination
*interleukin 10: CM, drug comparison
*interleukin 10: IT, drug interaction
*interleukin 10: DT, drug therapy
*interleukin 10: EC, endogenous compound
*interleukin 10: NA, intranasal drug administration
*interleukin 10: PO, oral drug administration
cytokine: AD, drug administration
cytokine: CB, drug combination
cytokine: CM, drug comparison
cytokine: IT, drug interaction
cytokine: DT, drug therapy
cytokine: EC, endogenous compound
cytokine: NA, intranasal drug administration
cytokine: PO, oral drug administration
myelin basic protein: CB, drug combination
myelin basic protein: CM, drug comparison
myelin basic protein: DO, drug dose
myelin basic protein: IT, drug interaction
myelin basic protein: DT, drug therapy
myelin basic protein: NA, intranasal drug administration
myelin basic protein: PO, oral drug administration
gamma interferon: EC, endogenous compound
interleukin 2: EC, endogenous compound

transforming growth factor alpha: EC, endogenous compound
autoantigen: CB, drug combination
autoantigen: CM, drug comparison
autoantigen: DO, drug dose
autoantigen: IT, drug interaction
autoantigen: DT, drug therapy
autoantigen: NA, intranasal drug administration
autoantigen: PO, oral drug administration
myelin oligodendrocyte glycoprotein: CB, drug combination
myelin oligodendrocyte glycoprotein: IT, drug interaction
myelin oligodendrocyte glycoprotein: DT, drug therapy
myelin oligodendrocyte glycoprotein: PO, oral drug administration
insulin: CB, drug combination
insulin: IT, drug interaction
insulin: DT, drug therapy
insulin: PO, oral drug administration
ovalbumin: CM, drug comparison
ovalbumin: PO, oral drug administration

CAS REGISTRY NO.: (gamma interferon) 82115-62-6; (interleukin 2) 85898-30-2; (insulin) 9004-10-8; (ovalbumin) 77466-29-6

L173 ANSWER 93 OF 99 EMBASE

ACCESSION NUMBER: 2000400228 EMBASE
TITLE: A randomized, double-blind, placebo-controlled trial of a new weight-reducing agent of natural origin.
AUTHOR: Thom E.
CORPORATE SOURCE: Dr. E. Thom, Parexel Medstat AS, PO Box 210, N-2001 Lillestrom, Norway. erling.thom@parexel.com
SOURCE: Journal of International Medical Research, (2000) Vol. 28, No. 5, pp. 229-233. .
Refs: 13
ISSN: 0300-0605 CODEN: JIMRBV
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 006 Internal Medicine
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 13 Dec 2000
Last Updated on STN: 13 Dec 2000

ABSTRACT: The efficacy and tolerability of a new weight-reduction agent, based on natural ingredients, was investigated in this randomized, placebo-controlled, double-blind study. The product reduces the absorption of different types of sugar from the gastrointestinal tract. Forty obese volunteers were included in the 12-week study. Body weight, body composition and blood pressure were recorded at baseline and every month during the study. The results show a significant difference in weight reduction in favour of the active group (3.5 kg versus 1.2 kg). Body composition measurements showed that > 85% of the reduction in the active group is fat loss. The tolerability was similar and good in both groups. This product shows promising results and should be studied more extensively at different dose levels.

CONTROLLED TERM: Medical Descriptors:
*weight reduction

***obesity: DT, drug therapy**
drug efficacy
drug effect
glucose absorption
stomach absorption
intestine absorption
body weight
body composition
blood pressure
body fat
drug tolerability
drug mixture
drug formulation
side effect: SI, side effect
human
male
female
clinical article
clinical trial
randomized controlled trial
double blind procedure
controlled study
adult
article
Drug Descriptors:
*natural product: AE, adverse drug reaction
*natural product: CT, clinical trial
*natural product: DT, drug therapy
*natural product: PR, pharmaceutics
*natural product: PD, pharmacology
*natural product: PO, oral drug administration
*suco bloc: AE, adverse drug reaction
*suco bloc: CT, clinical trial
*suco bloc: DT, drug therapy
*suco bloc: PR, pharmaceutics
*suco bloc: PD, pharmacology
*suco bloc: PO, oral drug administration
*antiobesity agent: AE, adverse drug reaction
*antiobesity agent: CT, clinical trial
***antiobesity agent: DT, drug therapy**
*antiobesity agent: PR, pharmaceutics
*antiobesity agent: PD, pharmacology
*antiobesity agent: PO, oral drug administration
phaseolus vulgaris extract: AE, adverse drug reaction
phaseolus vulgaris extract: CT, clinical trial
phaseolus vulgaris extract: CB, drug combination
phaseolus vulgaris extract: DT, drug therapy
phaseolus vulgaris extract: PD, pharmacology
phaseolus vulgaris extract: PO, oral drug administration
Garcinia cambogia extract: AE, adverse drug reaction
Garcinia cambogia extract: CT, clinical trial
Garcinia cambogia extract: CB, drug combination
Garcinia cambogia extract: DT, drug therapy
Garcinia cambogia extract: PD, pharmacology
Garcinia cambogia extract: PO, oral drug administration
inulin: AE, adverse drug reaction
inulin: CT, clinical trial
inulin: CB, drug combination
inulin: DT, drug therapy
inulin: PD, pharmacology

inulin: PO, oral drug administration
hydroxycitric acid: AE, adverse drug reaction
hydroxycitric acid: CT, clinical trial
hydroxycitric acid: CB, drug combination
hydroxycitric acid: DT, drug therapy
hydroxycitric acid: PD, pharmacology
hydroxycitric acid: PO, oral drug administration
amylase inhibitor: PD, pharmacology
glycoprotein: AE, adverse drug reaction
glycoprotein: CT, clinical trial
glycoprotein: CB, drug combination
glycoprotein: DT, drug therapy
glycoprotein: PD, pharmacology
glycoprotein: PO, oral drug administration
placebo
sugar
fat
glucose
amylase: EC, endogenous compound
carbohydrate
unclassified drug
phaseolamin
raftiline

CAS REGISTRY NO.: (inulin) 9005-80-5; (hydroxycitric acid) 27750-10-3, 6205-14-7; (glucose) 50-99-7, 84778-64-3; (amylase) 9000-90-2, 9000-92-4, 9001-19-8
CHEMICAL NAME: (1) Suco bloc; (2) Phaseolamin; (3) Raftiline
COMPANY NAME: (1) Med Eq (Norway); (2) Leuven Bioproducts (Belgium); (3) Orafti (Belgium)

L173 ANSWER 94 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2000306497 EMBASE
TITLE: Fruiting body production in basidiomycetes.
AUTHOR: Kues U.; Liu Y.
CORPORATE SOURCE: U. Kues, ETH Zurich, Institut fur Mikrobiologie, Schmelzbergstrasse 7, 8092 Zurich, Switzerland. kues@microbiol.ethz.ch
SOURCE: Applied Microbiology and Biotechnology, (2000) Vol. 54, No. 2, pp. 141-152. .
Refs: 122
ISSN: 0175-7598 CODEN: AMBIDG
COUNTRY: Germany
DOCUMENT TYPE: Journal; (Short Survey)
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 21 Sep 2000
Last Updated on STN: 21 Sep 2000

ABSTRACT: Mushroom cultivation presents an economically important biotechnological industry that has markedly expanded all over the world in the past few decades. Mushrooms serve as delicacies for human consumption and as nutriceuticals, as 'food that also cures'. Mushrooms, the fruiting bodies of basidiomycetous fungi, contain substances of various kinds that are highly valued as medicines, flavourings and perfumes. Nevertheless, the biological potential of mushrooms is probably far from exploited. A major problem up to now is that only a few species can be induced to fruit in culture. Our current knowledge on the biological processes of fruiting body initiation and development is limited and arises mostly from studies of selected model

organisms that are accessible to molecular genetics. A better understanding of the developmental processes underlying fruiting in these model organisms is expected to help mushroom cultivation of other basidiomycetes in the future.

CONTROLLED TERM: Medical Descriptors:
*Basidiomycetes
*biotechnology
mushroom
food industry
drug industry
agriculture
fungus growth
fungal genetics
drug activity
nonhuman
short survey
Drug Descriptors:
nebularine
illudin M
illudin S
coprine
galectin
flammulin
polyene
lectin
ergosterol
ganoderan A
ganoderan B
ganoderan C
peptidoglycan
grifolan
lentinan
timonacic
schizophyllan
scleroglucan
2beta,3alpha,9alpha trihydroxy 5alpha ergosta 7,22 diene
steroid
grifolin
resorcinol derivative
pachymaran
pachyman
pachymic acid
tumulosic acid
cortinellin
lenzitin
antifungal agent
unindexed drug
unclassified drug

CAS REGISTRY NO.: (nebularine) 550-33-4; (illudin M) 1146-04-9, 19903-66-3; (illudin S) 1149-99-1; (coprine) 58919-61-2; (ergosterol) 23637-22-1, 2418-45-3, 3992-98-1, 57-87-4; (ganoderan A) 99332-03-3; (ganoderan B) 99332-04-4; (peptidoglycan) 9047-10-3; (**grifolan**) 104074-36-4; (lentinan) 37339-90-5; (timonacic) 444-27-9; (schizophyllan) 9050-67-3; (scleroglucan) 39464-87-4; (pachymaran) 65637-98-1; (pachyman) 9037-88-1; (pachymic acid) 29070-92-6

L173 ANSWER 95 OF 99 EMBASE

ACCESSION NUMBER: 1999355784 EMBASE
TITLE: Von Willebrand factor contained in a high purity FVIII concentrate (Fanhdi®) binds to platelet **glycoproteins** and supports platelet adhesion to subendothelium under flow conditions.
AUTHOR: Rivera J.; Escolar G.; Casamiquela R.; Bravo M.I.; Jorquera J.I.; Castillo R.; Ordinas A.; Vicente V.
CORPORATE SOURCE: Dr. V. Vicente, Centro Regional de Hemodonacion, C/ Ronda de Garay s/n, 30003 Murcia, Spain. wg@fcu.um.es
SOURCE: Haematologica, (1999) Vol. 84, No. 1, pp. 5-11. .
Refs: 42
ISSN: 0390-6078 CODEN: HAEMAX
COUNTRY: Italy
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 025 Hematology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 29 Oct 1999
Last Updated on STN: 29 Oct 1999

ABSTRACT: Background and Objective. There is evidence suggesting that von Willebrand factor (VWF) from high purity factor VIII concentrates could be of clinical use in the management of patients suffering from VWD. We analyzed structural and functional characteristics of VWF present in a high purity factor VIII concentrate VWF(HPC) (Fanhdi®). The multimeric structure, the ability to bind to platelet GP Ib/IX or GP IIb/IIIa, and the capacity of VWF(HPC) to promote platelet adhesion on injured vessels were investigated and compared with that present in standard plasma cryoprecipitates [VWF(CRYO)]. Design and Methods. Binding studies were carried out by incubating radiolabeled VWF and washed platelets, which were activated with either ristocetin (1 mg/mL; for GP Ib/IX), or thrombin (2.5 U/mL; for GP IIb/IIIa). Platelet adhesion was assessed in a perfusion system (shear rate = 800 s-1, 10 min) in which the source of VWF was added (at 0.4 or 0.8 U/mL VWF:Ag) to washed platelets and red cells suspended in a human albumin solution. The deposition of platelets onto the perfused subendothelial surface was morphometrically evaluated and expressed as percentage of surface coverage (%SC). Results. The VWF(HPC) (152 Units VWF:RCof/mg protein; VWF:RCof/VWF:Ag = 0.97), lacked only a small proportion of high-**molecular- weight** multimers present in VWF(CRYO). Binding affinities (Kd values, nM) of VWF(HPC) were similar to those of VWF(CRYO) (5.3±0.86 vs 5.2±0.95, for GP Ib/IX; and 11.6±2.7 vs 15.4±1.7 for GPIIb-IIIa). A slightly, though not significantly, higher binding capacity for these receptors (Bmax values, molecules/pit) was obtained for VWF(HPC). The %SC in perfusions in the presence of albumin was < 10%. Addition of VWFHPC or VWF(CRYO) significantly increased the %SC, with values of 27.1±4.9 and 17.5±2.8%, respectively with 0.4 U/mL ($p<0.004$ and $p<0.02$ vs albumin); and 30.8±4.9% and 20.03±4.1%, respectively, at 0.8 U/mL ($p<0.001$ and $p<0.02$ vs albumin). Interpretation and Conclusions. Our data show that VWF present in the high purity FVIII concentrate Fanhdi® retains the functional capacity to bind to GPs Ib/IX and IIb/IIIa and to promote platelet adhesion onto exposed subendothelium.

CONTROLLED TERM: Medical Descriptors:
*thrombocyte adhesion
*vascular endothelium
*artery blood flow
*drug purity
shear rate
hemoperfusion
morphometrics

cryoprecipitate
blood bank
rabbit
human
nonhuman
animal experiment
controlled study
human cell
animal cell
article
Drug Descriptors:
*von willebrand factor
*blood clotting factor 8 concentrate
*thrombin receptor: EC, endogenous compound
*fibrinogen receptor: EC, endogenous compound
ristocetin
thrombin
human albumin

CAS REGISTRY NO.: (von willebrand factor) 109319-16-6; (ristocetin) 11006-74-9, 11140-99-1, 1404-55-3; (thrombin) 9002-04-4
CHEMICAL NAME: (1) Fanhdi
COMPANY NAME: **(1) Grifols (Spain)**

L173 ANSWER 96 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1999050188 EMBASE
TITLE: [Quality control in platelet concentrates: Validation of a new bag type].
CONTROLLO DI QUALITA NEI CONCENTRATI PIASTRINICI: VALIDAZIONE DI UN NUOVO TIPO DI SACCA.
AUTHOR: Steffan A.; Pradella P.; Abbruzzese L.; De Angelis V.; Cozzi M.R.; De Marco L.
CORPORATE SOURCE: Dr. A. Steffan, Serv. Immunotrasfusionale Anal. Clin, IRCCS Centro di Riferimento Oncol., 33081 Aviano Pn, Italy
SOURCE: Trasfusione del Sangue, (1998) Vol. 43, No. 6, pp. 345-350.
.
Refs: 17
ISSN: 0041-1787 CODEN: TRSABD
COUNTRY: Italy
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 025 Hematology
027 Biophysics, Bioengineering and Medical Instrumentation
LANGUAGE: Italian
SUMMARY LANGUAGE: English; Italian
ENTRY DATE: Entered STN: 4 Mar 1999
Last Updated on STN: 4 Mar 1999

ABSTRACT: The yield and the post-transfusion recovery of random platelet concentrates (PC) are influenced by several variables. Platelet activation and damage of membrane associated receptorial complexes may occur during the preparation of platelet concentrate; during storage, serial changes in platelet ultrastructure, physicochemical and membrane properties occur; physico-chemical properties of the blood bags in which platelets are stored may variably affect either platelet preparation or storage. Therefore, the validation of any new plastic container for PC is based on data of quality control of the preparation and storage of platelet, which must explorate at least membrane ***glycoprotein*** (GP) expression and function, the appearance of platelet activation and lysis markers. The integrity of the GPIb-IX and GPIIb-IIIa complexes (which act as receptor for yon Willebrand factor, fibrinogen and other adhesive proteins), is required for the haemostatic efficiency of

platelet. The membrane expression of P-selectin, an adhesion molecule, in the selectin family, which is normally located inside the αgranule membrane of the platelet, is considered a reliable index of platelet activation. The loss of membrane GPIb can be studied by monitoring the progressive increase in the supernatant of glycocalicin (GC), which is its 45 Kd aminoterminal portion. We studied the characteristics of platelet preparation (15 PC) and storage in a new bag for PC (manufactured by **Grifols** Laboratories, Murcia, Spain) which is specially intended to maintain oxygen content and pH and to minimize the release of plastic components. At the time of preparation and during an extended storage (up to 7 days), we have explored the above mentioned platelet properties, in a quality control program, which includes also control procedures routinarily performed at our Blood Bank for PC preparation and storage (lactate dehydrogenase, pH, platelet and leucocyte count). As control, we have evaluated 15 platelet concentrates separated and stored in Fenwal (PL1240) bags. The expression of GPIIb-IIIa seems to be unmodified, while a higher decrease of GPIb and a higher increase of GC value have been noticed in Fenwal as compared to **Grifols** bags. Moreover, a better pH maintenance (never lower than 6.8 during storage) and lower activation indexes (P-selectin, GC) characterize PC stored in **Grifols** bags. We conclude that the new oxygen-permeable **Grifols** bag shows platelet quality at least comparable to the conventional bags intended for prolonged platelet storage.

CONTROLLED TERM: Medical Descriptors:
*thrombocyte transfusion
*thrombocyte preservation
health care quality
health care delivery
quality control
validation process
instrumentation
protein expression
blood bank
human
article
Drug Descriptors:
*thrombocyte concentrate
PADGEM protein: EC, endogenous compound
selectin: EC, endogenous compound
glycocalicin: EC, endogenous compound
COMPANY NAME: **Grifols** (Spain)

L173 ANSWER 97 OF 99 EMBASE
ACCESSION NUMBER: 96297308 EMBASE
DOCUMENT NUMBER: 1996297308
TITLE: Prevention of diabetes in the non-obese diabetic mouse by oral immunological treatments. Comparative efficiency of human insulin and two bacterial antigens, lipopolysaccharide from Escherichia coli and glycoprotein extract from Klebsiella pneumoniae.
AUTHOR: Sai P.; Rivereau A.S.
CORPORATE SOURCE: Immuno-Endocrinology, ENVN, Route de Gachet, CP 3013,44087 Nantes Cedex 03, France
SOURCE: Diabetes and Metabolism, (1996) Vol. 22, No. 5, pp. 341-348. .
ISSN: 0338-1684 CODEN: DIMEFW
COUNTRY: France
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology

005 General Pathology and Pathological Anatomy
006 Internal Medicine
026 Immunology, Serology and Transplantation
052 Toxicology
037 Drug Literature Index

LANGUAGE: English
SUMMARY LANGUAGE: English; French
ENTRY DATE: Entered STN: 12 Nov 1996
Last Updated on STN: 12 Nov 1996

ABSTRACT: As oral administration of insulin reduces the incidence of diabetes in NOD mice, and to achieve a better approximation of oral insulin trials being developed for human studies which will use human insulin, we attempted to determine the preventive efficacy of oral administration of human insulin rather than resorting to the animal insulins used in previous studies. As the strength of prevention obtained by oral insulin has not been adequately demonstrated, we determined whether the protection persisted after the oral treatment was discontinued and whether it was resistant to a diabetogenic injection of cyclophosphamide (CY). We also determined whether the effect of insulin could be Increased by oral administration of lipopolysaccharide from Escherichia coli (LPS) or another immunostimulant (glycoprotein extracts from Klebsiella pneumoniae, GEKP) which may be more feasible far human application. Female NOD mice were fed once a week (from 35 to 300 days of age) with insulin, LPS, GEKP, insulin plus LPS, insulin plus GEKP, or PBS. A decreased incidence of diabetes were observed in animals fed human insulin ($p < 0.01$ incidence of diabetes at 300 days of age: 31% in mice fed with insulin and 65% in those fed PBS). Prevention by insulin was not enhanced by oral LPS or GEKP. Yet unexpectedly, mice fed with LPS alone or GEKP alone displayed decreases in diabetes incidence ($p < 0.01$). The severity of insulitis was reduced in animals fed insulin, LPS, GEKP or combinations of insulin and either immunostimulant ($p < 0.02$). Although the oral treatments were stopped at 300 days of age, the incidence of diabetes at 360 days remained lower in mice previously fed insulin, LPS, GEKP or combinations of insulin and either immunostimulant ($p < 0.01$). In mice previously fed PBS, CY injection (60 days after withdrawal of the oral treatment) led to a final incidence of diabetes of 90% (sum of the incidence during the initial 360 days and the further CY-induced incidence). Previous feedings with insulin, LPS, GEKP or combinations of insulin and either immunostimulant did not protect against CY-induced diabetes since incidences reached the final control incidence. T splenocytes from animals fed insulin, LPS, or GEKP, similarly reduced the capacity of T cells from diabetic mice to transfer the disease ($p < 0.01$). It is concluded that oral treatment with human insulin to be used in human trials reduces the incidence of diabetes in NOD mice. Equivalent preventive efficacy was obtained through feedings with LPS or GEKP (even though no cumulative efficiency was observed with insulin). The latter results suggest that it would be advisable to evaluate the efficiency of oral bacterial antigens for the prevention of human Type 1 diabetes. The protection afforded by oral treatments with insulin or bacterial antigens may be attributed to cellular suppression, persists for some time after treatments are stopped, but is not resistant to major immune stimulation such as injection of CY.

CONTROLLED TERM: Medical Descriptors:
*diabetes mellitus: ET, etiology
*diabetes mellitus: PC, prevention
***diabetes mellitus: DT, drug therapy**
*diabetes mellitus: EP, epidemiology
animal experiment
animal model
article
controlled study
female

mouse
nonhuman
oral drug administration
subcutaneous drug administration
Drug Descriptors:
*biostim: DT, drug therapy
*biostim: CB, drug combination
*biostim: CM, drug comparison
*biostim: PD, pharmacology
*escherichia coli lipopolysaccharide: PD, pharmacology
*escherichia coli lipopolysaccharide: CM, drug comparison
*escherichia coli lipopolysaccharide: DT, drug therapy
*escherichia coli lipopolysaccharide: CB, drug combination
*immunostimulating agent: DT, drug therapy
*immunostimulating agent: CB, drug combination
*immunostimulating agent: CM, drug comparison
*immunostimulating agent: PD, pharmacology
*insulin: PD, pharmacology
*insulin: CM, drug comparison
*insulin: AD, drug administration
*insulin: DT, drug therapy
*insulin: CB, drug combination
***klebsiella pneumoniae glycoprotein: PD, pharmacology**
***klebsiella pneumoniae glycoprotein: DT, drug therapy**
*klebsiella pneumoniae glycoprotein: CB, drug combination
*klebsiella pneumoniae glycoprotein: CM, drug comparison
cyclophosphamide: TO, drug toxicity
unclassified drug

CAS REGISTRY NO.: (biostim) 68583-24-4; (insulin) 9004-10-8; (cyclophosphamide) 50-18-0
CHEMICAL NAME: (1) Biostim; (2) Endoxan
COMPANY NAME: (1) Cassenne (France); (2) Astra (France); Sigma (United States); Lilly

L173 ANSWER 98 OF 99 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 94041403 EMBASE
DOCUMENT NUMBER: 1994041403
TITLE: Peptide-induced T-cell tolerance to prevent autoimmune diabetes in a transgenic mouse model.
AUTHOR: Aichele P.; Kyburz D.; Ohashi P.S.; Odermatt B.; Zinkernagel R.M.; Hengartner H.; Pircher H.
CORPORATE SOURCE: Department of Medical Biophysics, Ontario Cancer Institute, 500 Sherbourne Street,Toronto, Ont. M4X 1K9, Canada
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1994) Vol. 91, No. 2, pp. 444-448. .
ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
004 Microbiology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Feb 1994
Last Updated on STN: 27 Feb 1994

ABSTRACT: A synthetic peptide corresponding to an immunodominant epitope of lymphocytic choriomeningitis virus glycoprotein (LCMV GP) was used to prime or to tolerize CD8+ T cells in vivo, dependent on mode of immunization. Peptide-specific tolerance was then examined in transgenic mice expressing LCMV GP in the β islet cells of the pancreas; these mice develop CD8+ T-cell-mediated diabetes within 8-14 days after LCMV infection. Specific peptide-induced tolerance prevented autoimmune destruction of β islet cells and diabetes in this transgenic mouse model.

CONTROLLED TERM: Medical Descriptors:
*autoimmunity
*diabetes mellitus: PC, prevention
*diabetes mellitus: ET, etiology
***diabetes mellitus: DT, drug therapy**
*immunological tolerance
animal model
animal tissue
article
controlled study
cytotoxic t lymphocyte
immunization
intraperitoneal drug administration
lymphocytic choriomeningitis virus
nonhuman
pancreas islet beta cell
priority journal
subcutaneous drug administration
transgenic mouse
drug therapy
etiology
prevention
Drug Descriptors:
*synthetic peptide: DT, drug therapy
***virus glycoprotein: DT, drug therapy**
cd8 antigen: EC, endogenous compound
epitope
freund adjuvant
glucose: EC, endogenous compound

CAS REGISTRY NO.: (freund adjuvant) 9007-81-2; (glucose) 50-99-7, 84778-64-3

L173 ANSWER 99 OF 99 EMBASE

ACCESSION NUMBER: 94041401 EMBASE
DOCUMENT NUMBER: 1994041401
TITLE: Antigen-specific immunotherapy: Is it a real possibility to combat T- cell-mediated autoimmunity?.
AUTHOR: Tisch R.; McDevitt H.O.
CORPORATE SOURCE: Department of Microbiology, Stanford University Medical Center,Stanford, CA 94305-5402, United States
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1994) Vol. 91, No. 2, pp. 437-438. .
ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Note
FILE SEGMENT: 026 Immunology, Serology and Transplantation
037 Drug Literature Index
LANGUAGE: English
ENTRY DATE: Entered STN: 27 Feb 1994
Last Updated on STN: 27 Feb 1994

CONTROLLED TERM: Medical Descriptors:
*autoimmunity
*cellular immunity
*immunotherapy
allergic encephalitis: TH, therapy
allergic encephalitis: PC, prevention
allergic encephalitis: ET, etiology
allergic encephalitis: DT, drug therapy
antigen recognition
antigen specificity
human
immunological tolerance
inhalational drug administration
insulin dependent diabetes mellitus: ET, etiology
insulin dependent diabetes mellitus: DT, drug therapy
insulin dependent diabetes mellitus: PC, prevention
insulin dependent diabetes mellitus: TH, therapy
intraperitoneal drug administration
lymphocytic choriomeningitis virus
multiple sclerosis: ET, etiology
multiple sclerosis: TH, therapy
multiple sclerosis: DT, drug therapy
nonhuman
note
oral drug administration
priority journal
rheumatoid arthritis: TH, therapy
rheumatoid arthritis: ET, etiology
rheumatoid arthritis: DT, drug therapy
drug therapy
etiology
prevention
therapy
Drug Descriptors:
*autoantigen: EC, endogenous compound
*glutamate decarboxylase: DT, drug therapy
*myelin basic protein: DT, drug therapy
***virus glycoprotein: DT, drug therapy**
cd4 antigen: EC, endogenous compound
cd8 antigen: EC, endogenous compound
collagen type 2: DT, drug therapy
epitope
interleukin 10
interleukin 4
transforming growth factor beta

CAS REGISTRY NO.: (glutamate decarboxylase) 9024-58-2

=>